



Michigan
Transportation Asset
Management Council

Administrative, Communication and Education Committee Meeting Agenda

Wednesday, April 10, 2019 @ 10:30 AM
Aeronautics Building – 2nd Floor Commission Room
2700 Port Lansing Rd.,
Lansing, MI

- 1. Welcome - Call to Order – Introductions**
- 2. Changes or Additions to the Agenda (*Action Item as needed*)**
- 3. Public Comments on Non-Agenda Items**
- 4. Election of Committee Officers (*Action Item*)**
- 5. Consent Agenda (*Action Item*)**
 - 5.1.** Approval of the March 6, 2019 Meeting Minutes (*Attachment 1*)
 - 5.2.** TAMC Financial Report (*Attachment 2*)
 - 5.3.** Local Technical Assistance Program's *The Bridge* Newsletter Article Schedule (*Attachment 3*)
- 6. Review & Discussion Items:**
 - 6.1.** TAMC Awards 2019 Update – *Belknap (Attachment 4)*
 - 6.2.** 2019 TAMC Spring Conference & APWA Collaboration Update – *Strong/Mekjian (Attachment 5)*
 - 6.3.** Draft TAMC Policy for Submittal & Review Asset Management Plans – *Belknap (Attachment 6)*
 - 6.4.** TAMC June 5 Strategic Session & 2020-2022 TAMC Work Program/Budget – *Start*
 - 6.5.** 2018 TAMC Annual Report Update – *Jennett*
- 7. Public Comments**
- 8. Member Comments**
- 9. Adjournment: *Next meeting July 10, 2019 at 10:30 AM – Aeronautics 2nd Floor Commission Room, 2700 Port Lansing Rd., Lansing, MI***

Meeting Telephone Conference Line: 1-877-336-1828 Access Code: 8553654#

**TRANSPORTATION ASSET MANAGEMENT COUNCIL
ADMINISTRATIVE, COMMUNICATION, and EDUCATION COMMITTEE**

March 6, 2019 at 10:30 a.m.
MDOT Aeronautics Building, 2nd Floor Commission Room
2700 Port Lansing Road
Lansing, Michigan
MINUTES

****Frequently Used Acronyms Attached**

Members Present:

Derek Bradshaw, MAR, via Telephone
Rob Surber, DTMB/CSS

Jonathan Start, MTPA/KATS – Chair
Todd White, MDOT

Support Staff Present:

Roger Belknap, MDOT
Dave Jennett, MDOT
Gloria Strong, MDOT

Tim Colling, MTU/LTAP, via Telephone
Polly Kent, MDOT

Members Absent:

Gary Mekjian, MML

Public Present:

None

1. Welcome – Call-to-Order – Introductions:

The meeting was called to order at 10:37 a.m. Everyone was welcomed to the meeting.

2. Changes or Additions to the Agenda:

None

3. Public Comments on Non-Agenda Items:

None

4. Election of Committee Officers (Action Item):

Item was tabled until next meeting.

5. Consent Agenda – J. Start (Action Items):

5.1. - Approval of the February 6, 2019 Meeting Minutes (Attachment 1)

Motion: D. Bradshaw made a motion to approve the February 6, 2019 meeting minutes; T. White seconded the motion. The motion was approved by all members present.

5.2. – TAMC Financial Report (Attachment 2) – R. Belknap

R. Belknap provided a copy of the 03/02/2019 TAMC Budget Expenditure Report to the Committee for their review.

5.3. – Local Technical Assistance Program’s “The Bridge” Newsletter Article Schedule (Attachment 3)

T. Colling provided the due dates for the newsletter: First Quarter, TAMC Bridge Committee will do an article on the TAMC Culvert Pilot Project, this article has already been submitted to MTU. Second Quarter, TAMC ACE Committee will do an article on TAMC 2018 Roads and Bridges Report, this article is due March 22, 2019 to MTU. Third Quarter, TAMC Data Committee will do a potential article on Asset Management Plans and the TAMC AMP Template, this article is due June 3, 2019. Fourth Quarter, no committee and no topic has been selected, this article is due to MTU on September 1, 2019.

The ACE Committee would like to do an article on the Michigan Infrastructure Council, Water Asset Management Council, and TAMC for the Second Quarter. Then do the TAMC 2018 Roads and Bridges Report article for the Third Quarter. The Committee will discuss this with Joanna Johnson, TAMC Chair, before making any changes to the current schedule.

6. Review and Discussion Items:

6.1. – TAMC Awards 2019 – R. Belknap

So far, TAMC has received one recommendation for a TAMC award. The Committee would like R. Belknap to send out a reminder in the near future regarding submitting recommendations for the awards.

Action Item: R. Belknap will send out a reminder to agencies, etc. regarding submitting recommendations for TAMC awards to help get as many nominations as possible.

6.2. – 2019 TAMC Spring Conference in Collaboration with APWA – G. Strong

The TAMC and the American Public Works Association (APWA) Conference will be held on May 22 and 23, 2018, at the Treetop Resort in Gaylord, Michigan. APWA will hold their annual golf outing on May 21, 2018 as well as a welcoming reception where everyone attending the conference can participate. On Wednesday, May 22, 2019, TAMC and APWA will hold joint sessions. On Thursday, May 23, 2019, APWA will hold APWA only sessions. G. Strong is working with APWA conference planners on the logistics. TAMC conference attendees will lodge at the Otsego Resort approximately 5 minutes away from the Treetops Resort. The presenters have all confirmed their participation in the conference, including David Juntunen, P.E., Bridge Management Consultant, the Kercher Group, Inc. G. Strong sent out an email to presenters, Council members, and support staff to begin making their travel arrangements for the conference.

6.3. – TAMC Data Collection Policy and PASER Certification Benefits – R. Belknap (Attachment 4) (Action Item)

R. Belknap updated the TAMC Data Collection policy. The Metropolitan Planning Organizations and Regional Planning Organizations are required to send at least one member of the planning agency to attend the PASER/IBR training and certified raters are required to attend on-site training every fourth year and recertify by taking the certification exam. R. Belknap will add another bullet point to the policy on page 4 of the draft policy provided to the committee stating what exact trainings they will be required to take – PASER and IBR.

Motion: A motion was made by D. Bradshaw to amend the policy to allow the MPO/RPOs to send one person every year to training and other staff can also be certified. Instead of being certified each year, it is recommended that certification be for three years; to be recertified on the fourth year. The motion also includes the policy change of adding the extra bullet point regarding the requirement of taking PASER/IBR trainings; T. White seconded the motion. The motion was approved by all members present.

6.4. - Draft TAMC Policy for Submittal and Review of Asset Management Plans – J. Start/R. Belknap (Attachment 5)

Public Act 325 created new reporting and submission requirements for Asset Management Plans. T. Colling at MTU, has created a *White Paper* that will help create a policy on how agencies will submit to TAMC their asset management plans and how TAMC will assist TAMC support staff with the review of asset management plans. R. Belknap created a draft TAMC policy for the submittal and review of asset management plans. J. Start shared a written description of eight (8) concerns that he had with the draft policy. The committee feels the Council will also need to look at how they will address other infrastructure (including culverts and signals) in the asset management plans. Due to the lack of meeting time, it was decided that the committee will review the draft policy along with J. Start's comments and provide feedback to R. Belknap who will make the necessary changes to the policy to present the revised policy at the next ACE Committee meeting.

Action Item: TAMC ACE Committee members must review the draft policy along with J. Start's suggested changes and provide any comments to R. Belknap before the next April 10, 2019 ACE Committee Meeting.

Action Item: Support staff will revise the policy per ACE Committee members comments and bring the revised policy to the next ACE Committee meeting.

6.5. – Central Data Agency Task List and Budget – R. Belknap/R. Surber (Attachment 6)

There were three items that were discussed at the last TAMC Data Committee meeting and CSS was asked to provide how long it would take to accomplish these tasks and how it would affect the budget. CSS provided an estimated budget report stating it would cost \$10,200 to add warranty projects in the IRT; it would cost \$7,200 to show on the interactive map three-year projects, and lastly, it would cost \$3,200 to add MPO layers on the IRT dashboards. The CSS tasks and related budgets to each task was reviewed and discussed. The ACE Committee likes the budget planning from CSS as this shows them any remaining unspent funds that can be used for other assignments for CSS.

Motion: D. Bradshaw made a motion for the Committee to forward on to full Council their recommendation to approve CSS to proceed with doing three items as stated above – IRT Warranty Projects (\$10,200), Three-year Projects on the interactive map (\$7,200), and MPO layers added onto the IRT dashboards (\$3,200); T. White seconded the motion. The motion was approved by all members present.

6.6. - TAMC June 5, 2019 Strategic Planning Session/FY 2020-2022 TAMC Work Program – J. Start

The Council will need to discuss how the structure of the work program ties in with the budget at the June 5, 2019, TAMC Strategic Planning Session. The Committee would like to create a process for when and how TAMC creates its budget.

P. Kent provided a draft work program for discussion with additional notes showing specific to each of the tasks, budgeted costs (if any to TAMC), frequency, who is responsible to handle the task, and year(s) of completion. R. Surber requested that a column be added to the work program of reference numbers that relate to the past work program.

6.7. – 2018 TAMC Annual Report Update – D. Jennett

D. Jennett got cost estimates for two different sizes of the next annual report. The larger size as made last year cost \$13.25 per copy and if made into a smaller size (half the size) it will cost \$10.50 per copy. He asks that the Committee think about what size they would prefer that the report be made for the 2018 report.

7. Public Comments:

None

8. Member Comments:

None

9. Adjournment:

The meeting adjourned at 11:58 a.m. The next meeting will be held April 10, 2019 at 10:30 a.m., 2700 Port Lansing Road, 2nd Floor Commission Conference Room, Lansing, Michigan.

TAMC FREQUENTLY USED ACRONYMS:

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT-51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYSTEM DESIGNED TO DISTRIBUTE MICHIGAN'S ACT 51 FUNDS. A ROADWAY MUST BE CLASSIFIED ON THE ACT 51 LIST TO RECEIVE STATE MONEY.
ADA	ADULTS WITH DISABILITIES ACT
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM


BTP	BUREAU OF TRANSPORTATION PLANNING (MDOT)
CFM	COUNCIL ON FUTURE MOBILITY
CPM	CAPITAL PREVENTATIVE MAINTENANCE
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
CSD	CONTRACT SERVICES DIVISION (MDOT)
CSS	CENTER FOR SHARED SOLUTIONS
DI	DISTRESS INDEX
ESC	EXTENDED SERVICE LIFE
FAST	FIXING AMERICA'S SURFACE TRANSPORTATION ACT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)
FY	FISCAL YEAR
GLS REGION V	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION
GVMC	GRAND VALLEY METRO COUNCIL
HPMS	HIGHWAY PERFORMANCE MONITORING SYSTEM
IBR	INVENTORY BASED RATING
IRI	INTERNATIONAL ROUGHNESS INDEX
IRT	INVESTMENT REPORTING TOOL
KATS	KALAMAZOO AREA TRANSPORTATION STUDY
KCRC	KENT COUNTY ROAD COMMISSION
LDC	LAPTOP DATA COLLECTORS
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM
MAC	MICHIGAN ASSOCIATION OF COUNTIES
MAP-21	MOVING AHEAD FOR PROGRESS IN THE 21 ST CENTURY (ACT)
MAR	MICHIGAN ASSOCIATION OF REGIONS
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MDTMB	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
MIC	MICHIGAN INFRASTRUCTURE COMMISSION
MITA	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION
MML	MICHIGAN MUNICIPAL LEAGUE
MPO	METROPOLITAN PLANNING ORGANIZATION
MTA	MICHIGAN TOWNSHIPS ASSOCIATION
MTF	MICHIGAN TRANSPORTATION FUNDS
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY
NBI	NATIONAL BRIDGE INVENTORY
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS
NFA	NON-FEDERAL AID
NFC	NATIONAL FUNCTIONAL CLASSIFICATION
NHS	NATIONAL HIGHWAY SYSTEM
PASER	PAVEMENT SURFACE EVALUATION AND RATING
PNFA	PAVED NON-FEDERAL AID
PWA	PUBLIC WORKS ASSOCIATION
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL
RBI	ROAD BASED INVENTORY
RCKC	ROAD COMMISSION OF KALAMAZOO COUNTY
ROW	RIGHT-OF-WAY
RPA	REGIONAL PLANNING AGENCY
RPO	REGIONAL PLANNING ORGANIZATION
SEMCOG	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS
STC	STATE TRANSPORTATION COMMISSION
STP	STATE TRANSPORTATION PROGRAM
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL
TAMCSD	TRANSPORTATION ASSET MANAGEMENT COUNCIL SUPPORT DIVISION

TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN
TPM	TRANSPORTATION PERFORMANCE MEASURES
UWP	UNIFIED WORK PROGRAM

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.11.27.2018.GMS

DRAFT

TAMC Budget Expenditure Report

 Michigan Transportation Asset Management Council		FY17 Budget			FY17 Actual			FY18 Budget			FY18 Actual			FY19 Budget			FY19 Year to Date			FY20 Budget		
		(most recent invoice date)	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$	Spent	Balance	\$				
I. Data Collection & Regional-Metro Planning Asset Management Program																						
Battle Creek Area Transportation Study	1 QTR 19	\$	20,000.00	\$	15,444.03	\$	4,555.97	\$	20,500.00	\$	20,213.36	\$	286.64	\$	20,500.00	\$	2,143.27	\$	18,356.73	\$	20,500.00	
Bay County Area Transportation Study	1 QTR 19	\$	20,000.00	\$	10,794.42	\$	9,205.58	\$	21,100.00	\$	8,028.84	\$	13,071.16	\$	21,100.00	\$	5,210.01	\$	15,889.99	\$	19,900.00	
Central Upper Peninsula Planning and Development	1 QTR 19	\$	40,471.00	\$	40,471.00	\$	-	\$	47,000.00	\$	47,000.00	\$	-	\$	47,000.00	\$	5,487.67	\$	41,512.33	\$	50,000.00	
East Michigan Council of Governments	FEB	\$	95,995.00	\$	80,092.75	\$	15,902.25	\$	111,000.00	\$	81,559.65	\$	29,440.35	\$	111,000.00	\$	26,901.46	\$	84,098.54	\$	108,000.00	
Eastern Upper Peninsula Regional Planning & Devel.	1 QTR 19	\$	20,000.00	\$	20,000.00	\$	-	\$	23,100.00	\$	23,100.00	\$	-	\$	23,100.00	\$	5,943.70	\$	17,156.30	\$	25,000.00	
Genesee Lapeer Shiawassee Region V Planning Com.	JAN	\$	39,423.00	\$	37,172.06	\$	2,250.94	\$	46,000.00	\$	45,954.99	\$	45.01	\$	46,000.00	\$	192.91	\$	45,807.09	\$	46,000.00	
Grand Valley Metropolitan Council	1 QTR 19	\$	20,000.00	\$	18,974.64	\$	1,025.36	\$	25,000.00	\$	12,060.69	\$	12,939.31	\$	25,000.00	\$	1,112.35	\$	23,887.65	\$	24,000.00	
Kalamazoo Area Transportation Study	1 QTR 19	\$	20,000.00	\$	19,128.11	\$	871.89	\$	22,000.00	\$	21,588.77	\$	411.23	\$	22,000.00	\$	1,102.95	\$	20,897.05	\$	22,000.00	
Macatawa Area Coordinating Council	1 QTR 19	\$	20,000.00	\$	7,405.66	\$	12,594.34	\$	20,200.00	\$	9,575.57	\$	10,624.43	\$	20,200.00	\$	190.00	\$	20,010.00	\$	19,000.00	
Midland Area Transportation Study	1 QTR 19	\$	20,000.00	\$	17,660.54	\$	2,339.46	\$	21,000.00	\$	20,857.81	\$	142.19	\$	21,000.00	\$	1,680.88	\$	19,319.12	\$	21,000.00	
Northeast Michigan Council of Governments	FEB	\$	43,426.45	\$	43,426.45	\$	-	\$	52,200.00	\$	52,200.00	\$	-	\$	46,000.00	\$	13,906.70	\$	32,093.30	\$	51,000.00	
Networks Northwest	1 QTR 19	\$	61,316.00	\$	61,316.00	\$	-	\$	72,000.00	\$	71,915.46	\$	84.54	\$	72,000.00	\$	10,034.74	\$	61,965.26	\$	75,000.00	
Region 2 Planning Commission	1 QTR 19	\$	37,940.00	\$	24,743.56	\$	13,196.44	\$	42,000.00	\$	29,362.33	\$	12,637.67	\$	42,000.00	\$	8,452.00	\$	33,548.00	\$	40,000.00	
Saginaw County Metropolitan Planning Commission	1 QTR 19	\$	20,000.00	\$	11,585.29	\$	8,414.71	\$	22,200.00	\$	22,000.00	\$	200.00	\$	22,200.00	\$	681.86	\$	21,518.14	\$	21,000.00	
Southcentral Michigan Planning Commission	1 QTR 19	\$	53,162.00	\$	36,915.67	\$	16,246.33	\$	57,300.00	\$	37,137.28	\$	20,162.72	\$	57,300.00	\$	1,913.04	\$	55,386.96	\$	55,000.00	
Southeast Michigan Council of Governments	FEB	\$	135,680.00	\$	135,679.60	\$	0.40	\$	174,000.00	\$	174,000.00	\$	-	\$	174,000.00	\$	38,381.33	\$	135,618.67	\$	174,000.00	
Southwest Michigan Planning Commission	1 QTR 19	\$	37,030.00	\$	37,030.00	\$	-	\$	41,000.00	\$	41,000.00	\$	-	\$	41,000.00	\$	2,584.95	\$	38,415.05	\$	41,000.00	
Tri-County Regional Planning Commission	1 QTR 19	\$	33,786.00	\$	33,786.00	\$	-	\$	40,000.00	\$	21,680.54	\$	18,319.46	\$	40,000.00	\$	3,780.24	\$	36,219.76	\$	40,000.00	
West Michigan Regional Planning Commission	FEB	\$	82,467.00	\$	82,467.00	\$	-	\$	91,000.00	\$	74,351.07	\$	16,648.93	\$	91,000.00	\$	6,803.96	\$	84,196.04	\$	88,000.00	
West Michigan Shoreline Regional Development Com.	FEB	\$	46,781.56	\$	46,145.01	\$	636.55	\$	54,000.00	\$	51,333.45	\$	2,666.55	\$	54,000.00	\$	3,821.41	\$	50,178.59	\$	54,000.00	
Western Upper Peninsula Regional Planning & Devel.	1 QTR 19	\$	34,867.00	\$	34,847.53	\$	19.47	\$	40,000.00	\$	40,000.00	\$	-	\$	40,000.00	\$	6,848.30	\$	33,151.70	\$	42,000.00	
MDOT Region Participation & PASER Quality Control	2/5/19	\$	62,750.00	\$	85,337.50	\$	(22,587.50)	\$	80,000.00	\$	52,914.97	\$	27,085.03	\$	91,440.00	\$	6,667.64	\$	84,772.36	\$	80,000.00	
Fed. Aid Data Collection & RPO/MPO Program Total		\$	965,095.01	\$	900,422.82	\$	64,672.19	\$	1,116,400.00	\$	957,834.78	\$	158,565.22	\$	1,116,400.00	\$	153,841.37	\$	962,558.63	\$	1,116,400.00	
II. PASER Data Collection (Paved, Non-Federal-Aid System)																						
PASER PNFA Data Collection Total		\$	40,760.39	\$	40,760.39	\$	-	<i>(FY18 PNFA Moved into Data Collection Program Above)</i>			<i>(FY19 PNFA Moved into Data Collection Program Above)</i>			<i>(FY20 PNFA Moved into Data Collection Program Above)</i>								
III. TAMC Central Data Agency (MCSS)																						
Project Management	4/2/19	\$	37,800.00	\$	\$40,064.00	\$	(\$2,264.00)	\$	42,000.00	\$	46,585.00	\$	(4,585.00)	\$	42,000.00	\$	26,911.00	\$	15,089.00	\$	380,000.00	
Data Support /Hardware / Software	4/2/19	\$	60,200.00	\$	\$58,833.00	\$	\$1,367.00	\$	68,800.00	\$	67,800.00	\$	1,000.00	\$	68,800.00	\$	10,050.00	\$	58,750.00	\$	-	
Application Development / Maintenance / Testing	4/2/19	\$	83,280.00	\$	\$78,238.00	\$	\$5,042.00	\$	114,475.00	\$	115,250.00	\$	(775.00)	\$	114,475.00	\$	31,575.00	\$	82,900.00	\$	-	
Help Desk / Misc Support / Coordination	4/2/19	\$	66,600.00	\$	\$65,652.00	\$	\$948.00	\$	70,200.00	\$	68,200.00	\$	2,000.00	\$	70,200.00	\$	19,100.00	\$	51,100.00	\$	-	
Training	4/2/19	\$	27,600.00	\$	\$29,133.00	\$	(\$1,533.00)	\$	34,950.00	\$	24,850.00	\$	10,100.00	\$	34,950.00	\$	4,450.00	\$	30,500.00	\$	-	
Data Access / Reporting	4/2/19	\$	47,155.00	\$	\$45,696.00	\$	\$1,459.00	\$	49,575.00	\$	52,175.00	\$	(2,600.00)	\$	49,575.00	\$	21,675.00	\$	27,900.00	\$	-	
<i>FY17 Off Budget: IRT Re-write - \$241,000</i>		9/30/17	\$	241,040.00	\$	260,023.00	\$	(18,983.00)														
TAMC Central Data Agency (MCSS) Total		\$	322,635.00	\$	317,616.00	\$	5,019.00	\$	380,000.00	\$	374,860.00	\$	5,140.00	\$	380,000.00	\$	113,761.00	\$	266,239.00	\$	380,000.00	
IV. TAMC Training & Education (MTU) Calendar Year Z1		3/21/19	\$	210,000.00	\$	208,658.90	\$	1,341.10	\$	235,000.00	\$	219,780.57	\$	15,219.43	\$	220,000.00	\$	21,500.07	\$	198,499.93	\$	220,000.00
V. TAMC Activities (MTU) 215/R1		3/21/19	\$	70,000.00	\$	60,253.50	\$	9,746.50	\$	115,000.00	\$	114,089.32	\$	910.68	\$	120,000.00	\$	19,034.45	\$	100,965.55	\$	120,000.00
VI. TAMC Expenses																						
Fall Conference Expenses	12/11/18	\$	6,000.00	\$	8,312.40	\$	-	\$	10,000.00	\$	7,269.00	\$	-	\$	10,000.00	\$	7,507.40	\$	-	\$	10,000.00	
Fall Conf. Attendance Fees + sponsorship Fees	12/11/18	\$	-	\$	2,625.00	\$	-	\$	-	\$	4,405.00	\$	-	\$	-	\$	6,755.00	\$	-	\$	-	
Net Fall Conference	12/11/18	\$	8,625.00	\$	8,312.40	\$	312.60	\$	14,405.00	\$	7,269.00	\$	7,136.00	\$	16,755.00	\$	7,507.40	\$	9,247.60	\$	-	
Spring Conference Expenses	11/5/18	\$	8,000.00	\$	6,721.80	\$	-	\$	3,800.00	\$	7,439.36	\$	-	\$	10,000.00	\$	-	\$	-	\$	10,000.00	
Spring Conf. Attendance Fees + sponsorship Fees	8/17/18	\$	-	\$	6,140.00	\$	-	\$	-	\$	8,350.00	\$	-	\$	-	\$	1,000.00	\$	-	\$	-	
Net Spring Conference	11/5/18	\$	14,140.00	\$	6,721.80	\$	7,418.20	\$	12,150.00	\$	7,439.36	\$	4,710.64	\$	11,000.00	\$	-	\$	11,000.00	\$	10,000.00	
Other Council Expenses	3/15/19	\$	3,915.29	\$	8,483.24	\$	(4,567.95)	\$	10,000.00	\$	7,301.72	\$	2,698.28	\$	10,000.00	\$	1,878.07	\$	8,121.93	\$	10,000.00	
TAMC Expenses Total		\$	26,680.29	\$	23,517.44	\$	3,162.85	\$	36,555.00	\$	22,010.08	\$	14,544.92	\$	37,755.00	\$	9,385.47	\$	28,369.53	\$	20,000.00	
VII. Culvert Pilot Project																						
Central Data Agency (MCSS)	10/16/18	\$	-	\$	-	\$	-	\$	15,000.00	\$	9,312.00	\$	5,688.00	\$	25,000.00	\$	-	\$	-	\$	-	
MTU Project Management & Training	1/2/19	\$	-	\$	-	\$	-	\$	172,100.00	\$	172,100.00	\$	-	\$	15,000.00	\$	-	\$	-	\$	15,000.00	
TAMC Administration & Contingency	11/7/18	\$	-	\$	-	\$	-	\$	84,438.00	\$	-	\$	84,438.00	\$	-	\$	-	\$	-	\$	-	
Central Upper Peninsula Planning and Development	3 qtr 18	\$	-	\$	-	\$	-	\$	88,641.00	\$	51,909.64	\$	36,731.36	\$	-	\$	-	\$	-	\$	-	
East Michigan Council of Governments	SEPT	\$	-	\$	-	\$	-	\$	328,607.00	\$	259,229.13	\$	69,377.87	\$	-	\$	-	\$	-	\$	-	
Eastern Upper Peninsula Regional Planning & Devel.	4 qtr 18	\$	-	\$	-	\$	-	\$	5,688.00	\$	5,034.70	\$	653.30	\$	-	\$	-	\$	-	\$	-	
Genesee Lapeer Shiawassee Region V Planning Com.	SEPT	\$	-	\$	-	\$	-	\$	124,909.00	\$	54,266.60	\$	70,642.40	\$	-	\$	-	\$	-	\$	-	
Grand Valley Metropolitan Council	4 qtr 18	\$	-	\$	-	\$	-	\$	77,782.00	\$	69,733.25	\$	8,048.75	\$	-	\$	-	\$	-	\$	-	
Kalamazoo Area Transportation Study	SEPT	\$	-	\$	-	\$	-	\$	50,402.00	\$	15,879.65	\$	34,522.35	\$	-	\$	-	\$	-	\$	-	
Northeast Michigan Council of Governments	SEPT	\$	-	\$	-	\$	-	\$	33,506.00	\$	21,781.96	\$	11,724.04	\$	-	\$	-	\$	-	\$	-	
Networks Northwest	SEPT	\$	-	\$	-	\$	-	\$	184,513.00	\$	163,641.05	\$	20,871.95	\$	-	\$	-	\$	-	\$	-	
Region 2 Planning Commission	3 qtr 18	\$	-	\$	-	\$	-	\$	54,900.00	\$	22,776.80	\$	32,123.20	\$	-	\$	-	\$	-	\$	-	
Southcentral Michigan Planning Commission	SEPT	\$	-	\$	-	\$	-	\$	93,456.00	\$	36,137.17	\$	57,318.83	\$	-	\$	-	\$	-	\$	-	
Southeast Michigan Council of Governments	SEPT	\$	-	\$	-	\$	-	\$	87,644.00	\$	45,757.96	\$	41,886.04	\$	-	\$	-	\$	-	\$	-	
Southwest Michigan Planning Commission	4 qtr 18	\$	-	\$	-	\$	-	\$	101,849.00	\$	67,138.17	\$	34,710.83	\$	-	\$	-	\$	-	\$	-	
Tri-County Regional Planning Commission	4 qtr 18	\$	-	\$	-	\$	-	\$	47,587.00	\$	6,962.44	\$	40,624.56	\$	-	\$	-	\$	-	\$	-	
West Michigan Regional Planning Commission	SEPT	\$	-	\$	-	\$	-	\$	241,511.00	\$	181,441.39	\$	60,069.61	\$	-	\$	-	\$	-	\$	-	
West Michigan Shoreline Regional Development Com.	SEPT	\$	-	\$	-	\$	-	\$	144,238.00	\$	89,092.30	\$	55,145.70	\$	-	\$	-	\$	-	\$	-	
Western Upper Peninsula Regional Planning & Devel.	4 qtr 18	\$	-	\$	-	\$	-	\$	63,229.00	\$	46,960.41	\$	16,26									

3/15/2019



Michigan
Transportation Asset
Management Council

LTAP's *The Bridge* Newsletter

TAMC Committee Article Assignments 2019

Draft Articles are to be submitted to Victoria Sage, *The Bridge* Editor at Michigan Technological University's Center for Technology and Training: vlsage@mtu.edu (906) 487-3128.

First Quarter: TAMC Bridge Committee

Topic: TAMC Culvert Pilot Project

Due Date: Submitted

Second Quarter: TAMC ACE Committee

Topic: MIC/WAMC/TAMC

Due Date: 3-22-19

Third Quarter: TAMC Data Committee

Potential Topic: TAMC 2018 Roads & Bridges Report

Due Date: 6-3-19

Fourth Quarter: TAMC

Potential Topics: Asset Management Plans & TAMC Template

Due Date: 9-1-19

**BOARD OF COUNTY ROAD COMMISSIONERS
OF BARRY COUNTY**

Attachment 4

Office
1725 West M-43 Highway, P.O. Box 158
Hastings, MI 49058-0158
Phone (269) 945-3449 • (888) 575-8059 • FAX (269) 945-4580
Website: www.barrycrc.org
E-Mail: administration@barrycrc.org

Commissioners:
DAVID D. SOLMES
FRANK M. FIALA
D. DAVID DYKSTRA

BRADLEY S. LAMBERG, P.E.
Managing Director
CHRISTINE BEBEAU
Secretary

DATE: Friday, March 01, 2019

To: Michigan Transportation Asset Management Council
Attn: Roger Belknap, TAMC Coordinator

RE: 2019 TAMC Organizational Achievement Award Submission

Introduction

The Barry County Road Commission (BCRC) has formulated, evaluated, and consistently continues the process of analyzing their decision making process with in their asset management plan.

For the last 17 years BCRC has conducted annual evaluations on every segment of paved road within the county. Data collection is the initial step in formulating the asset management plan. Without knowing the current condition of your system how can it be possible to make decisions, much less optimal ones, to positively impact your entire system in perpetuity?

Goal setting has played a large role in BCRC's management plan as well. Constructing, maintaining, and re-constructing the road network in Barry County in PERPETUITY is the driving force behind the plan. Without maintaining a solid focus on the fact that this system will be here forever and the need to base decisions on that fact, one might realize decisions ought to be left to others. The narrative that "this repair will get this road past my retirement," never creeps into the process for BCRC. Strict adherence to "Life Cycle Cost Analysis," based decisions at the segmental level have directly led to the success in Barry County.

Based on the historical evaluations and countless efforts to continue evaluating and researching the newest and, more importantly, best maintenance and construction practices the BCRC has firmly come to the conclusion that the only way to fulfil a goal of a fair to good road system in perpetuity is to employ a "Best-First," strategy with maintaining all BCRC owned assets. This process is utilized in nearly every management decision made by the BCRC.

With, arguably, the best road system in the State of Michigan the following paragraphs shows BCRC as a leader in the State with regard to Asset Management and should be considered for this award.

Condition Assessment

Initial and continual condition assessment is an essential cog in the decision tree used by the BCRC with regard to all assets under their management plan. An initial baseline condition assessment is the first step in developing a continual condition assessment plan. There is no basis for decision making without at least current condition data. Decisions have been able to be honed and incrementally adjusted based on the continual condition assessment data that has been gathered for quite some time in Barry County.

The BCRC takes a physical, onsite, analysis of all local and primary paved road segments within the system every year. This assessment takes place near the end of each construction season and includes the engineering department's evaluation of the current road condition, as well as the segment by segment maintenance or construction recommendation solution. Every segment is placed into a MS Excel spreadsheet (*Exhibit A*) and shared with the Township partners. This consistent and well thought out analysis being provided to township officials annually has produced a very trusting and confident relationship between all 16 townships and the BCRC. The township partners assist with funding paved and gravel road maintenance, construction, dust control, and line painting.

(EXHIBIT A)

Baltimore Township					
2019					
Primary & Local Paved Road Condition Reports					

<u>RATING</u>	<u>ROAD NAME</u>	<u>DIMENSIONS</u>	<u>ROAD SEGMENT</u>	<u>RECOMMENDATION</u>	<u>TWP. COSTS</u>
7 Primary	Banfield Rd	0.95 Miles 22' Wide	Drake Rd to 400' South of Dowling Rd	Crack Seal	\$3,325 \$0
History -					
Constructed -		P & DS	1966		
Mill & Fill:					
Overlay:		81, 07-14			
Edge Seal:		78			
Slag Seal:		73, 81-89, 95-00, 07-14			
Crack Seal:		16-19	(Add 0.03 Geething)		
Blade Patching:		85-89			

As required, the BCRC also rates our Federal Aid system with a regional planner and MDOT. In 2018, the BCRC's efforts reached a milestone. With the lowest percentage of poorly rated roads in the entire County Road Commission controlled system, at only 6.5% rated in poor condition. The BCRC also collects and submits their local road data as well as the other half of the Federal Aid eligible roads not required to be collected by TAMC each year.

On a biennial basis, the BCRC has all bridges inspected and reported to the State of Michigan. This data is analyzed annually to determine maintenance work and to select which projects will be submitted for Critical Bridge Funds annually.

In 2018, the BCRC volunteered to complete the culvert inventory pilot project with TAMC. The data collection process was the first step in continuing the BCRC's efforts to begin implementing the asset management plan with regard to drainage structures. Upon completing field study on every segment of road in Barry County, an initial assessment is available to aide in decision making regarding culverts.

Annually, cost information is provided to the shop superintendent with regard to maintenance costs of trucks and equipment. This information is used in deciding when to replace trucks and equipment at the optimal time to assure the lowest life cycle cost for equipment ownership.

With regard to some assets, options are limited, i.e. replacing a truck v. fix the old one. Some other assets require much more research and analysis to determine and continually monitor innovative options and include them in a “Mix of Fixes.” Costs are often defined, but the BCRC continues to monitor and evaluate costs to keep them as low as possible. Equally significant across all assets, the BCRC realizes that funding is a controlling factor.

Coupled with attempting to stay at or near the head of the pack in newly emerging methods the BCRC employs a bevy of proven and time tested fixes that comprise their mix of fixes. The list is shown in *Exhibit B*. Most of these repairs, the BCRC has historical data, segment by segment, on how each of these fixes work, and has stopped operations that didn't prove cost effective and increased utilization of operations that have.

Mix of Fixes

Crack Sealing
Chip Sealing (HFRS-2M @ .46 rate, 25A slag @ 20 #/syd)
Edge and full seals (bar seal the outer most 4' and then seal the entire roadway)
Double seals
Micro surfacing followed by a chip seal
HMA overlay followed by a chip seal (36A, 6.3% AC content)
Mill & fill followed by a chip seal (36A, 6.3% AC content)
Chip seal interlayers
Full depth reconstruction

Around 30 years ago, the BCRC began chip sealing over wedge paving to stop or slow delamination. This, over time and evaluation, led the BCRC to begin chip sealing all newly placed HMA. Whether it be wedge paving, overlays, or complete reconstruction the BCRC chip seals HMA the same year it is placed. The findings by the BCRC have recently been backed up by former MNDOT employee Tom Wood, whom completed a 15 year study that shows the same life extension for pavements protected from oxidation by a chip seal in a quantitative fashion that the BCRC has continued to notice in a qualitative way. The BCRC firmly believes this to be the principal reason for their quality road conditions countywide.

Costs are determined annually, thru material and project bids prior to incorporating those costs into their life cycle cost analysis. As costs change, so would the point at which a more upfront costly repair, HMA overlay for instance, would become more economical, based on life cycle cost. Based on the expected life extension of each repair and the current costs, analysis is run on each segment countywide annually, to determine the “right,” repair at the “right,” time. Currently the BCRC’s costs are as shown below in *Exhibit C*.

The BCRC uses as many different funding sources as possible. Obviously MTF funding is utilized on nearly all operations at the road commission. Federal Aid funding is used annually. Recently the BCRC has participated in the Federal Aid funds exchange operated by MDOT and CRA. This has been done in an effort to maximize the miles repaired by the BCRC and to assure they are able to use proven strategies at the best price possible. The BCRC applies for Critical Bridge funds every year. Safety grants through MDOT have been completed for guardrail and signage improvements and applications are submitted on every call for projects. Economic Development funds have been used recently to build a new all-season route toward US-131 to secure a commitment from a local business to add more jobs within Barry County.

The funding received from the townships within Barry County has become a great source of pride for the BCRC. Townships contribute an amount equivalent to approximately 10%-15% of Barry County’s annual Michigan Transportation Fund revenue. Township funds are used by the BCRC on both primary and local roads. These funds are attained through a process that has been ongoing in Barry County for a number of years. The segment by segment road condition reports shown in *Exhibit A* are presented to each township individually every January in a 1-3 hour meeting held either at the road commission offices or at the township’s office. The relationships and trust nurtured throughout the entire year between the BCRC and their townships can often be time consuming and difficult. However, without fostering a stakeholder mentality, much of the work that was able to be completed during the extended, and continued, years of underfunding would not have been possible.

(EXHIBIT C)

Barry County Road Commission

Project Costs per Lane Mile

2019

Crack Seal	\$1,500
Chip Seal	\$7,500
Edge & Full Chip Seal	\$10,225
1.5" HMA Overlay & Chip Seal	\$45,000
1.5" Mill, Fill, and Chip Seal	\$57,000
Full Reconstruction	\$300,000- \$1,500,000
Bids have not been taken for 2019 work, this is based on 2018 pricing.	

Future Conditions, Performance Measures, & Targets

The BCRC utilizes past performance to determine future forecasts. The way any segment of road reacts to a particular treatment can often best be forecast using data points derived from that very road segment as well as hundreds of other segments within Barry County. Performance measures are determined by the BCRC based on annual inspection and constant data maintenance. Keeping a consistence and correct data history, helps the BCRC evaluate performance measures. The BCRC has never had a goal of hitting a certain percentage good, fair, or poor. Rather they simply base everything on life cycle cost calculations with the realization that this procedure will most certainly result in the best system possible for any given funding level.

The BCRC records PASER rating data in both RoadSoft and in the MS Excel sheet shown in *Exhibit A*. Forecasts are determined based on the past history of that particular road segment and past performance of repairs or maintenance operations. For instance, if you look at *Exhibit A*, that segment of Banfield Rd was constructed with a prime and double seal in 1966. The repair options listed below, if shown in bold, were performed that year. If they are shown in normal font they were recommended to be completed that year but were not completed. This allows the BCRC to know when the road was constructed, how it was constructed, when it had any type of maintenance work completed, as well as when that road was in need of a maintenance repair, even if it wasn't able to be completed based on financial constraints. Based on how the road segment reacted to past treatments allows the BCRC to accurately forecast quite closely as to how the next maintenance or construction operation may react. Basing decisions on a particular segment, not averages countywide or even statewide, has allowed the BCRC to forecast very closely the optimal timing of the optimal repair..

The intent of the BCRC is to keep all roads in fair or good shape until a point is reached that reconstruction or heavy rehabilitation is the best repair based on life cycle cost. At some point all roads come to the end of their service life and need reconstruction/rehabilitation. This will become evident at which time the options in the BCRC's mix of fixes won't last long enough to be the best value. At that point roads will be "let go," until a point at which they are in need of reconstruction/rehabilitation. Realizing these final years determines the total life cycle cost of the previous investments.

Trade-off Analysis and Candidate Projects

Determining which road to complete maintenance or construction on, with a limited budget, forces the BCRC to consider many factors. Obviously, as a public agency, political and resident influences can sway decision making if not acknowledged and consciously avoided. Stakeholders need to be included in the conversation but also must be given the knowledge that funds are not unlimited and the squeaky wheel can't always get the grease. Adhering to the "Best First," approach and informing their fellow stakeholder of the benefits of the approach has allowed the BCRC to often have stakeholders make the same decisions with little guidance from the BCRC.

The "Best First," mentality permeates the decision making process at the BCRC. Keeping the good roads good and allowing the bad roads to serve the end of their life before reconstruction has allowed the BCRC enough funds to keep almost everything in above average shape. Tough decisions have to be made with long term under funding. The BCRC frequently uses the analogy of how virtually everyone maintains their vehicle. If you have two vehicles, a beater old car and a brand new Corvette and you only have the money to change the oil in one of them, which one would you choose to keep the oil changed in? The answer is quite obvious when put in that context. "Best-first" is not complex, or even a novel idea. It's extremely simple and used everyday by everyone without even realizing it. Only in government would someone decide to buy something new or repair something old when they can't properly extend the life of the good things they currently have.

Candidate projects are developed once the PASER ratings are collected each year. Based on the decision making process talked about above, the BCRC creates a road report that is shared with their townships. This report also contains a summary sheet noting all of the projects recommended for completion. Often the townships will allocate a defined amount of funds they are able to contribute to roads and allow the BCRC to determine which repairs to select. Some townships take a more active role and engage the BCRC in determining which roads to complete. After years of consistently making recommendations based on life cycle cost, and decisions based on a best first approach many of the township officials make the same decisions the BCRC would have made.

Priorities for the Multi-year Program

Annually the BCRC creates a 5 year outlook for the stakeholders to consider, this practice shows stakeholders upcoming costs in which can be planned for. When the time comes for decision making, various components come into play. Current rating, past performance, traffic volume, and community need are all taken into account. These components are discussed with all stakeholders and publicly communicated regularly. Each year, as part of the road reports prepared by the BCRC, the 5 year outlook is updated to account for segments that react better, or worst, than thought the previous year. This information is uploaded to the IRT annually through RoadSoft as well.

Reporting Results

One item that is a great source of pride for the BCRC is the PASER rating for all roads. With townships contributing to both primary and local roads one might think that a larger percentage of funds would be utilized on the primary road system and that would cause a stark drop off on the local road side. Based on the decision making process and the asset management plan funds have been allocated in a manner which has allowed the local system to fair almost as well as the primary system. *Exhibit C* below shows the average PASER ratings for various groupings of BCRC roads based on the 2018 data collection cycle.

(EXHIBIT C)

County Wide Avg Paser					7.09
County Wide Mainline Avg Paser					7.31
County Wide Sub Avg Paser					5.27
County Wide Local Avg. Paser					6.37
County Wide Primary Avg. Paser					7.60

Conclusion

The Transportation Asset Management Council's Organizational Achievement Award is a coveted award for all road agencies. Being notarized by a compilation of your peers for exceptional decision making, communication, and organization should be an aspiration for all road agencies to strive for. The BCRC consistently volunteers for pilot programs, participates in data collection above and beyond what is required, and has formulated a plan to utilize those data points to make sound decisions. The BCRC has demonstrated for many years that consistent, inclusive, and informed planning and decision making can lead to great success. It isn't too much work to bring others along with you. The stakeholders within Barry County have been led by the BCRC through a program that has allowed the citizens of Barry County to enjoy the best road system in the State of Michigan. For that, the BCRC would be greatly appreciative of being recognized for these achievements. Thank you for the consideration!



Berrien County Road Department

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2019 TAMC Organizational Achievement Award
Nomination
Berrien County Road Department (BCRD)
Asset Management Roads and Bridges

Berrien County Road Department 2019 TAMC Organizational Achievement Award

The CRA of Michigan states that “...most local and county roads are in fair to poor condition.” This is a fact that Berrien County wants to change. Berrien County has the primary goal and objective to maintain safe roadways for the traveling public at all times. The goal to get roadway conditions increased to good is one way to ensure the safety of roadways and bridges. It is our belief that the best way to reach this goal is through the utilization of asset management.

Asset management is highly driven by data to assess the entire roadway system to ensure that the money spent will create the best outcome. Roadways that can be maintained in good and fair condition cost less than having to reconstruct a poor or failing roadway. The objective is to maintain roads that are good, budget and plan for projects on poor roadways; to have a better long-term outcome for local and county roads.

Asset management has always been acknowledged by roadway agencies, but the implementation and use of it has been at varying levels. The Berrien County Bridge Asset Management Report contains the asset management plan for all Berrien County Road Department maintained bridge structures. The report was created and submitted formally on December 8, 2018 by The Kercher Group, Inc. The full document is included in our support documents section of this award nomination submission. The Kercher Bridge Forecaster tool was provided with this report to help manage bridge specific preventative maintenance, rehabilitation, and replacement projects in a five or ten-year program, and has the ability to view individual bridge condition rating trends on the National Bridge Inventory. Also found in the supporting documents is the Berrien County Road Department bridge condition Google map, that shows the location and condition of the NBI bridges.

The report shows the overall condition rating for the 103 BCRD bridges; 51% (or 52 bridges) are good, 33% (or 34 bridges) are fair; and 16% (or 16 bridges) are poor. Compared to statewide averages from other local agency conditions report 86% of county-maintained bridge structures in Michigan are good or fair and 14% poor. Similar to roads, bridges in poor condition typically require major rehabilitation or total replacement to improve condition rating. Those structures in fair condition typically are treated with preventative maintenance options, and those in good condition would receive maintenance activities.

BCRD’s bridge goals are to reduce the number of serious and poor bridges (NBI General Condition Rating (GCR) 3 and 4), mitigate scour critical bridges, and to preserve good and fair bridges to keep them from becoming poor.

The objectives for implementing this preservation plan is to achieve and maintain that 90% of BCRD bridges be rated as good or fair within five years. Also, to strengthen, repair, or replace all BCRD bridges and NBI length culverts rated in serious (NBI GCR 3) within 7 years. Strengthen, mitigate, armor, or replace all scour critical bridges having extensive scour (items 113 = 2) to stabilize the foundations. Additionally to mitigate or replace scour critical bridges (NBI Item 113 = 3) when the structure is scheduled for rehabilitation or replacement due to major component condition ratings or other operational of function needs.

2019 TAMC Organizational Achievement Award Nomination
Berrien County Road Department (BCRD)
Asset Management Roads and Bridges

In regards to performance measures on bridge structures the BCRD will monitor and report the annual change in the number of bridges rated good, fair, or poor as rated by the NBI GCRs for bridges. A bridge rating is determined from the lowest of the deck, superstructure, or substructure ratings, or if the structure is a culvert type structure, the culvert rating. Also monitored will be the number of scour critical bridges and mitigate high priority needs to stabilize foundations.

In late 2018 the BCRD arranged meetings with all 22 townships located in the county. During the meetings BCRD management team highlighted and showcased the value of asset management and what it means to townships. These meetings were tailored specific to each township, showing PASER roadway data and showing them how engineers use Roadsoft to develop a 3-year plan for Berrien County.

The objective is to create a plan based on data and information gathered, to utilize past knowledge and create base information. The base information will help fuel future asset management decisions and guide the engineers to select the right fix, on the right road, at the right time.

This is the first year that the Berrien County Road Department has put together and officially published a Three Year Transportation Plan. The 2019-2021 Three Year Transportation Plan can be found online or in the supporting documents in this award nomination packet.

The condition of the Berrien County primary road system was determined by having the network pavement conditions PASER rated. PASER stands for Pavement Surface Evaluation and Rating. It is widely used throughout the country. By visual inspection of roadways, roads are evaluated by a team made up of typically a representative of the Southwest Michigan Planning Commission, MDOT, a BCRD Engineer and occasionally a representative of the city (if road being evaluated is in the city limits.) A segment of road is given a rating 1 to 10 based upon the visual condition. 10 being a rating that a newly constructed road would receive and 1 being what a failed road with total loss of surface integrity would be rated. At this time BCRD rates county primary roads on a biennial basis. The staff at the BCRD is seeking to evaluate all county primary and local roads on a biennial basis to help establish more data across the entire road network. Once a PASER Rating is determined that information is entered into the Roadsoft software.

In Berrien County there are a range of fixes that are utilized and considered when evaluating and determining a fix for a roadway or segment. The primary road treatment options considered are crack seal, sealcoat, prime and double seal, 2" HMA Overlay, Reconstruction (gravel/pulverize/HMA paving). Each fix is part of a treatment category, require different costs per lane mile, and have different PASER trigger points. One of the common preventative maintenance treatments is crack sealing. Crack sealing is when maintenance employees fill cracks with hot poured rubber, causing water to be sealed out and reduced the deterioration of the pavement. The cost per lane mile is approximately \$1,000 and is typically chosen when a roadway reaches a PASER trigger point rating of 7. The table located below will indicate other treatments, what treatment category, estimated cost per lane mile, and the PASER trigger point.

Primary Road Treatment Options

Treatment	Treatment Category	Estimated Cost per Lane Mile	PASER Trigger
Crack Seal	Prev. Maintenance	\$1,000	7
Sealcoat	Prev. Maintenance	\$10,000	5-6
Prime & Double Seal	Rehabilitation	\$33,250	4-5
2" HMA Overlay	Rehabilitation	\$75,000	3-4
Reconstruction Gravel/Pulverize/HMA Paving	Reconstruction	\$300,000	1-2

Local Road Treatment Options

Treatment	Treatment Category	Estimated Cost per Lane Mile	PASER Trigger
Local - Sealcoat	Rehabilitation	\$10,000	5-7
Local – Grind, Gravel, Prime & Double Seal	Reconstruction	\$33,250	1-4

With having data entered into Roadsoft, Roadsoft is able to calculate and recommend yearly investments to be allocated to each treatment by optimizing the average cost and current PASER rating for a portion of road.

Prior to the 2018 construction projects, Berrien County primary road network was rated; 6% Good, 20% Fair, and 74% Poor. During the 2018 construction year there was significant progress improving the road network. The average PASER rating was 4.46, an increase from 4.15 the previous year. After the 2018 construction projects, the primary roads were then rated; 16% Good, 33% Fair, and 51% Poor. The BCRD is working year-after-year to continue to decrease the percentage of poor roadways.

On February 14th 2019, Resolution A1902156 was presented and was adopted by the Board of Commissioners of Berrien County. The resolution mentioned the production of an updated Asset Management Plan yearly, utilizing this guide to make construction decisions in order to reach the goal of getting 75% of the primary road system in Berrien County in fair or good condition by 2029.

With both the Asset Management Plan for County Maintained Bridges and the 2019-2021 Three Year Transportation Plan created for Berrien County, the BCRD now has the required information to reference when determining which roads or bridges, what mix of fixes, and forecasting future condition. This information will only improve over time and allow the Berrien County Road Department to excel in utilizing all available funding in the best way for the benefit of the traveling public.

For this ongoing project it was important to get all BCRD staff on board with embracing asset management. BCRD engineers, management, maintenance staff, and local officials are informed of the importance of asset management. BCRD hosted training classes this past January to help support this effort and educate local officials. The training class was put on by Michigan Technological University's Center for Technology and Training.

2019 TAMC Organizational Achievement Award Nomination
Berrien County Road Department (BCRD)
Asset Management Roads and Bridges

When determining road projects and the right fix required for a specific road segment the engineers look closely at current data, trends, and other available resources. Engineers and BCRD staff work closely with township officials regarding projects. Listening carefully to observations that townships have observed personally or heard from local residents is helpful. This information can be used when determining if projects need a higher priority or can be moved to a different calendar year. Communication and data is the driving force behind all decisions made at the BCRD.

The Berrien County Road Department is about connecting good roads with other good roads to create a quality roadway system. Asset management once fully implemented will be the most helpful tool the engineers can use in making decisions. Safety and quality of roadways will increase overtime, which will make residents very pleased with the end results. Making data driven decisions is the best way to take emotions out of road repair decisions and be more transparent.

The BCRD continues to participate in the TAMC three-tiered reporting process. That process included annual PASER survey of road conditions on the federal-aid network, survey of completed projects on the federal-aid network, and submitting the agency's multi-year asset management plan.

BCRD is looking to expand current use of asset management techniques to include road signs, culverts, and more in the up and coming years. Asset management can be utilized in every county, state, or organization to help understand the data and make the best choices for the most people.

Title of project: Berrien County Road Department Asset Management Roads and Bridges

Brief Summary of the Paper:

The Berrien County Road Department (BCRD) is proud to have a Bridge Asset Management plan that has a proprietary degradation model incorporated into the plan. We are also pleased to embrace asset management when making roadway decisions. Asset management is the key to ensuring the best solution used to maintain roadways in good/fair condition instead of poor condition. In 2018 we began educating our local officials about the positives of asset management and we look to continue this trend with our 2019 road plans and beyond.

Additional attachments:

- Three Year Transportation Plan
 - 2019 BCRD Three Year Plan – FINAL_.pdf
- Bridge Asset Management Report
 - Berrien County Bridge Asset Management Report – v1.2.pdf
- BCRD Google map of bridges
 - Link: https://www.google.com/maps/d/viewer?mid=1m-4F20XCOSU4Q7Mp8houXQc9c12pX8M_&ll=41.99019329057009%2C-86.47208333000003&z=10

Transportation Asset Management Council Award Nomination

3/26/2019

City of Farmington Hills - For the implementation of and comprehensive approach to developing an Asset Management Plan with respect to roads.

Nomination submitted by Mark S. Saksewski, P.E., City of Farmington Hills Engineering Division

1. Introduction/Narrative :

The City of Farmington Hills has a long history leading to the development and implementation of their current asset management program and road funding mechanisms. Policies and programs have been developed and continue to evolve.

With respect to the road network, the first step was to collect data to identify the condition and needs of the system. The Pavement Surface Evaluation and Rating System (PASER) was utilized to collect data in conjunction with Roadsoft software and the Laptop Data Collector.

In 2014, the City developed a Pavement Condition Report & Road Funding Analysis to determine what type of funding levels were necessary to maintain and improve the road network. This plan was revisited in 2017 and will continue to be updated as new road data becomes available and costs for treatments change. These condition reports and necessary funding levels drew attention to the serious need for additional road funding to improve the deteriorating road infrastructure.

The City of Farmington Hills Road Network consists of approximately 300 centerline miles of roadway containing nearly 60 miles of major roads and approximately 240 miles of local roads.

The major road network analysis identified a necessary funding level of \$4 million to \$5 million annually to improve the PASER rating from 5.6 to the approximate target of 6.5, and more importantly reducing the roads in poor condition from 53% of the network to approximately 13% over the initial 10-year period.

The analysis of the local road network identified a more serious need. The current average condition of the local road network is rated at 4.4 on the PASER scale. Of particular concern is that full reconstruction is the only viable alternative for over half of the local road network due to its poor condition. The analysis predicted that an investment level of \$10 million per year over ten years would increase the average PASER rating from 4.4 to 6.8 and likewise result in the roads in poor condition dropping from 55% to 24% of the local road network.

This information was presented to City Council and it was clear that having this significant amount of roads in poor condition was adversely impacting property values and the overall attractiveness of the City for residents as well as commercial properties. With this information

in hand, the Public Services Department requested a millage of 2.0 Mills for 10 years for public roads. It was supported by City Council and ultimately the residents. The campaign for the millage was very informative and made a solid demonstration of the funding needed. It is important to note that this millage was primarily to generate funds for major roads, preventative maintenance on the entire network and to contribute up to 20% of the cost share for local road special assessments. Of particular importance is the fact that this did not eliminate the City Charter mandated Special Assessment process for funding local street improvements, which requires the residents to contribute 80% of the project cost through a special assessment.

Over the course of the next few years, City Administration and City Council also realized that the traditional special assessment process for local roads was not effective.

By way of background, the special assessment process required residents to request their road be considered for reconstruction/rehabilitation and involved a petitioning effort, not to mention an assessment to their property to cover 80% of the cost. This process was very unpopular with residents, as shown by the difficulty in getting a simple majority of support to move forward with a project. As a result, City Council explored the possibility of initiating or directing road assessments in areas where the pavement condition had fallen below a certain PASER rating. After discussing this proposal with the City Attorney, it was determined that City Council could initiate these assessments for road improvements and asked the Department of Public Services to draft a policy. A Directed Special Assessment policy was drafted and adopted by City Council in 2014. The Public Services Department also developed a five-year capital plan for replacing local streets.

2015 was the first (and only) year that the City Council implemented the Directed Special Assessment policy for three neighborhoods in the City. As one can imagine, the City forcing special assessment in neighborhoods for road reconstruction was not very popular. Later that year, City Council asked City administration to provide options for funding local street reconstruction. Over the course of the next 18 months, City staff identified several options for City Council consideration:

1. Do nothing (i.e. continue with a traditional special assessment policy where residents petition the City for a project and are responsible for a significant share of the cost)
2. Continue with Directed Special Assessments
3. Initiate a road millage to replace the special assessment process

Between August and November of 2018, City staff hosted multiple public information meetings with residents. Staff also presented information at a plethora of other venues including homeowner association meetings, various neighborhood groups, citizen groups, clubs, committees, etc. The City also engaged in an aggressive social media campaign, which included

video segments, a webpage, and a mailing to voters. A Local Road Millage information page was created on the City's website and included a millage calculator, frequently asked questions, and a PowerPoint video. In addition, there was a privately funded citizens group that supported the millage, creating and placing yard signs, and visiting voters door-to-door throughout the City.

Many residents were very skeptical of the City's need for an additional road millage for local streets. A critical factor of the public information effort was the data provided by our pavement asset management plan. This enabled residents to clearly see what the condition of their street was, when it was scheduled for reconstruction (if the millage passed), and the value of a road millage versus a road special assessment. It was also clearly communicated to the residents that the City wasn't guessing as it related to the amount of funding needed to make local road improvements throughout the City because there was solid data supporting the estimates.

On November 6, 2018, 58% of Farmington Hills voters decided in favor of the permanent Charter Amendment and the associated 2.75 mill increase on their taxes. This new millage will provide approximately \$10 million annually dedicated specifically for local road reconstruction, which is very close to the funding level recommended by the City's pavement management study.

It may also be of interest that the City participated in the State's culvert pilot program and recorded data on over 450 culverts utilizing the Roadsoft culvert module. Improvements have also been made to inventories by utilizing the respective Roadsoft modules for signs, guardrail, and pavement markings. The City anticipates leveraging this data as we proceed with implementation of the road asset management plan.

In summary, the asset management process, funding requirements and mechanisms were developed based on the needs of the road network (data driven) and put into action by partnering with City Council, City Staff and the residents of Farmington Hills.

2. Condition Assessment: How was the condition of your system determined? Include information about the rating system as well as the procedures used to collect, store, analyze, and update the information.

The Pavement Surface Evaluation and Rating System (PASER) is currently used to evaluate the condition of the City's road segments. The PASER system rates each road segment on a scale of 1-10 with 1 being the worst condition and 10 being the best condition. The ratings directly correspond to the expected remaining service life as well as appropriate maintenance activities. This data is also augmented with information on treatments or construction activity that has taken place or is planned in the near future.

SEMCOG (Southeast Michigan Council of Governments) has been collecting PASER data on the Federal Aid Eligible Roads in the City since 2003. The City of Farmington Hills' staff has collected PASER data on the remainder of the system in 2011, 2014, 2017 and intends to collect data on the entire network again in 2019.

All City Staff involved in data collection are trained and maintain PASER certification to collect road condition data. Data collection also provides an opportunity to evaluate the network first hand. Utilizing the PASER rating system, the Laptop Data Collector program and the Roadsoft software provides substantial benefits to the Asset Management process and allows the City to keep the recorded data up to date, secure, accurate and available for the City's needs.

3. Mix of Fixes, Estimated Costs and Funding Levels: How were your improvement needs identified? Include information about your agency's preferred improvement types (mix of fixes) and the estimated costs of each per lane mile to implement those improvements. Also describe the sources and anticipated funding levels available now and through the planning horizon to finance those improvements.

The City of Farmington Hills completed an extensive analysis to determine what treatments will be utilized with respect to maintenance and repair of the road network. Using preventative maintenance and an optimized "mix of fixes" approach helped determine the appropriate investment level for each activity on an annual basis. The City of Farmington Hills currently uses the following treatment alternatives:

- Overband Crack Seal (asphalt)
- Thin 1.5" Overlay
- Mill and 2-3" Overlay
- Pulverize and Overlay
- Asphalt Reconstruction
- Crack Joint Sealing (concrete)
- Corner Break Repair
- Concrete Slab Full-Depth Repair
- Concrete Road Reconstruction

For each of these treatment alternatives there is a corresponding PASER trigger, PASER reset value after treatment, a cost per square yard, and anticipated service life. Roadsoft has been useful in maintaining this data and determining the most effective treatment options. Additional treatments are always under review and may be added to the program in the future.

4. Future Conditions, Performance Measures and Targets: How were future system conditions determined? Indicate the methodology used (pavement management system, Roadsoft, other) and the performance measure(s) that were analyzed (e.g., percent of pavement conditions by PASER rating). Also describe the performance measure target(s) and planning horizon that your

agency is working to achieve (e.g. 70% of primary roads with a PASER Rating greater than 5 by the year 2020).

As identified in the City of Farmington Hills Pavement Condition Report & Road Funding Analysis, different goals and funding levels were identified for the major and local road networks. Iterations were performed for various funding levels for the major and local road networks utilizing the mix of fixes identified in Roadsoft that would have the greatest return on investment. All models were run for a 10-year duration.

For the major road network, a funding level between \$4 million and \$5 million per year was recommended. The projected impact of a program funded in this range would increase the PASER rating from the current 5.6 to a score in the range of 6.4 to 6.9. More importantly, this funding level is anticipated to reduce roads in poor condition from 53% to less than 19% within the 10-year program.

The investment level needed to improve the local road network is more significant than the major road network. There are nearly four times the centerline miles of local streets than that of the major network. Full reconstruction is the only viable alternative for over half of the local network due to its poor condition reflected by its average current PASER rating of 4.4. The analysis predicts that an investment level of \$10 million per year over 10 years would increase the average PASER rating to approximately 6.8 and reduce the roads in poor condition from 55% to 24% of the local road network.

Please note that this funding is supported through the identified road millages.

5. Trade-off Analysis and Candidate Projects: How does your agency go about the process of trade-off analysis: making investment decisions between various treatment options (e.g., routine maintenance vs. capital preventative maintenance vs. structural improvement)? How do performance measure and targets influence this process? Explain the process for identifying candidate improvement projects and the involvement of stakeholders in that process.

The key to reaching the desired performance measures and a successful asset management plan is applying the most cost-effective pavement treatment at the proper time. This means allocating resources to preserve the portion of the network that is in good to fair condition before pursuing heavy rehabilitation and reconstruction projects. The pavement optimization module in Roadsoft uses the input parameters to return a cost-effective plan that identifies the number of miles of road to receive specific treatments based on the available budget. PASER rating plays an important part in selection of the most cost-effective treatment option. There are three categories of maintenance and repairs identified for maintaining the roadway infrastructure:

Preventative Maintenance (PM) – Preventative maintenance is appropriate for newer roads with a PASER rating of 6 or higher. PM lengthens the service life of a structurally

sound pavement. PM is limited to surface improvements such as crack seals, joint seals and surface seals.

Road Rehabilitation (RH) – Road Rehabilitation procedures are appropriate for roads with a PASER rating between 6 and 4. More intense rehabilitation procedures may be possible for roads with a PASER rating of 3 if conditions such as existing pavement thickness allow it. RH may include localized full depth removal and replacement, mill and overlay, or other methods to improve the base and/or cross section of the pavement such as pulverize, regrade and overlay. RH procedures are more intensive than PM, but can restore a pavement to good condition at a lower cost than a full road reconstruction.

Road Reconstruction (RC) – Road reconstruction procedures are appropriate for roads rated 3 or below. In this case, full reconstruction with extensive base repair is typically necessary. Often, other types of work need to be considered with a full reconstruction, such as drainage improvement, water main or sanitary sewer install or replacement.

It should be noted that the Roadsoft model does not select specific segments to receive treatments. The model output is to be used as guidance in selecting specific streets and subdivisions for treatment based on the PASER rating. As the road program progresses, treatments and new ratings will be entered into Roadsoft to track the accuracy of previous projections and improve future model accuracy. When there is more need for a treatment than the budget will allow (typically reconstruction), other parameters may be considered for selection such as potential safety issues, possible conflict with another project, location of public facilities (school, library, etc.), traffic volumes, public interest, a utility project at the same location, maintenance records or the number of properties impacted by the improvement.

6. Priorities for the Multi-year Program: How does your agency prioritize projects and develop its improvement program? What factors are considered in the prioritization process (e.g., pavement /bridge condition rating, traffic volume, coordination with utility work, impact on land use and economic development, availability of funds)? How many years does your multi-year plan cover (planning horizon), how is project implementation monitored and how often is the plan updated.

The City of Farmington Hills maintains a five-year Capital Improvement Plan, which is updated annually. The primary components involved in prioritizing road projects include the available budget, the PASER rating of a specific roadway, and a cost-effective selection process guided by the Roadsoft model. As previously stated, when there is more need for a treatment than the budget will allow, other parameters may be considered to prioritize the sequence of projects. These considerations may include, but are not limited to: potential safety issues, possible conflict with another project, location of public facility (school, library, etc.), traffic volumes,

public interest, a utility project at the same location, maintenance records, economic development or the number of properties impacted by the improvement.

Generally the first and second year of the Capital plan consists of committed projects. The schedule of projects listed three to five years out is more fluid and may be adjusted for any number of reasons.

7. Reporting Results: Have you participated in the TAMC three-tiered reporting processes: 1.) annual PASER survey of road conditions on the federal-aid network, 2.) survey of completed projects on the federal-aid network, and 3.) Submitted your agency's multi-year asset management plan.

1. The City of Farmington Hills is preparing to collect its fourth complete PASER survey of the entire major and local road network. Typically complete PASER surveys are completed every other year. The Federal Aid network is specifically surveyed by SEMCOG representatives with the assistance of a PASER rater from the County and State biannually.
2. The City has completed the survey of projects completed on the federal-aid network as well as the local road network.
3. The asset management plan was submitted within the IRT reporting portal.

Nomination 2019 Transportation Asset Management Council (TAMC) Award

Project Name: Ross Township Local Infrastructure 3 Year Plan
Kalamazoo County

Completion Date: 2018

Public Agency: Road Commission of Kalamazoo County (RCKC) & Ross Township

Managing Agency: RCKC
3801 E Kilgore Road
Kalamazoo MI 49001
269-381-3171/Fax 269-381-1760
Mark Worden, Project Superintendent
mworden@kalamazooountyroads.com
www.kalamazooountyroads.com

Ross Township
12086 East M-89
Richland MI 49083
www.ross-township.us

Primary Contractor: RCKC



Road
Commission
of Kalamazoo
County



The project impacts Ross Township of Kalamazoo County. The township has a population of 4,664 (2010 Census) and the RCKC maintains 53.44 miles of local roads which had an average Pavement Surface Evaluation and Rating (PASER) of 4.312. The overall projects within the township included a mix of fixes from preventive maintenance, pavement design engineering, drainage and utility coordination for 45.21 miles of local roads. A three year plan was developed to support a township wide special assessment which was then funded by a township municipal bond for infrastructure improvements totaling \$5,650,732.00 million. The projects planned are to be completed by 2020.

Background

Ross Township in Kalamazoo County worked collaboratively with the RCKC in 2017 to consider an approach to bring all hard surface local roads in Ross Township into “Good” condition within a three year period. Ross Township was well aware of the increased improvements necessary on local roadways based on the project history and PASER data. A considerable amount of time was spent with Ross Township officials reviewing project history, treatment options/longevity and life cycle costs. The key from the RCKC approach was education vs. advocacy. The township formed a road committee to work with the RCKC and was a champion in the approach.

The township requested RCKC look at all local roads in need of improvement and provide a cost estimate. RCKC team estimated all the local roads within the township needing improvement, including drainage and curb repairs (45.21 miles). The RCKC team built a three year plan with a mix of fixes to best utilize funds that the township would seek through a township wide special assessment and municipal bond. The total RCKC estimate needed for the infrastructure improvements was \$5,650,732.00.

Prior to this request, RCKC annually presented five year capital improvement plans (CIP) for local roads in Ross Township. These plans did not include all local roads in the township, and focused on what could potentially be afforded using a mix of fixes. Some of the roads had been recently improved and therefore considered for preventive maintenance in the future. The RCKC team worked closely with Ross Township officials and their road committee, meeting several times to address potential issues with completing this level of work within such a short time frame. RCKC also met internally to review issues, concerns, processes and our overall capacity.

The level of investment and initiative by Ross Township would reduce routine maintenance costs and improve the overall rating of local roads significantly. The township would also need to consider maintenance of these roadways long term, preserving the investment.

The RCKC team utilized the Roadsoft software, average costs of road improvements, deterioration curves, field work and inspections to help determine the appropriate treatment types and the construction schedule for each of the roads. It was vital that we had the PASER condition of all our roads in the county to assist in the overall planning process.

The goal for RCKC was to develop a realistic 3 year local road asset management plan and project estimates which could easily be explained to the public, along with maps to visually show the improvements. RCKC had to develop a close partnership with the township to ensure successful delivery of projects and to build public trust in the effort. RCKC also had to ensure its internal ability to meet these expectations.

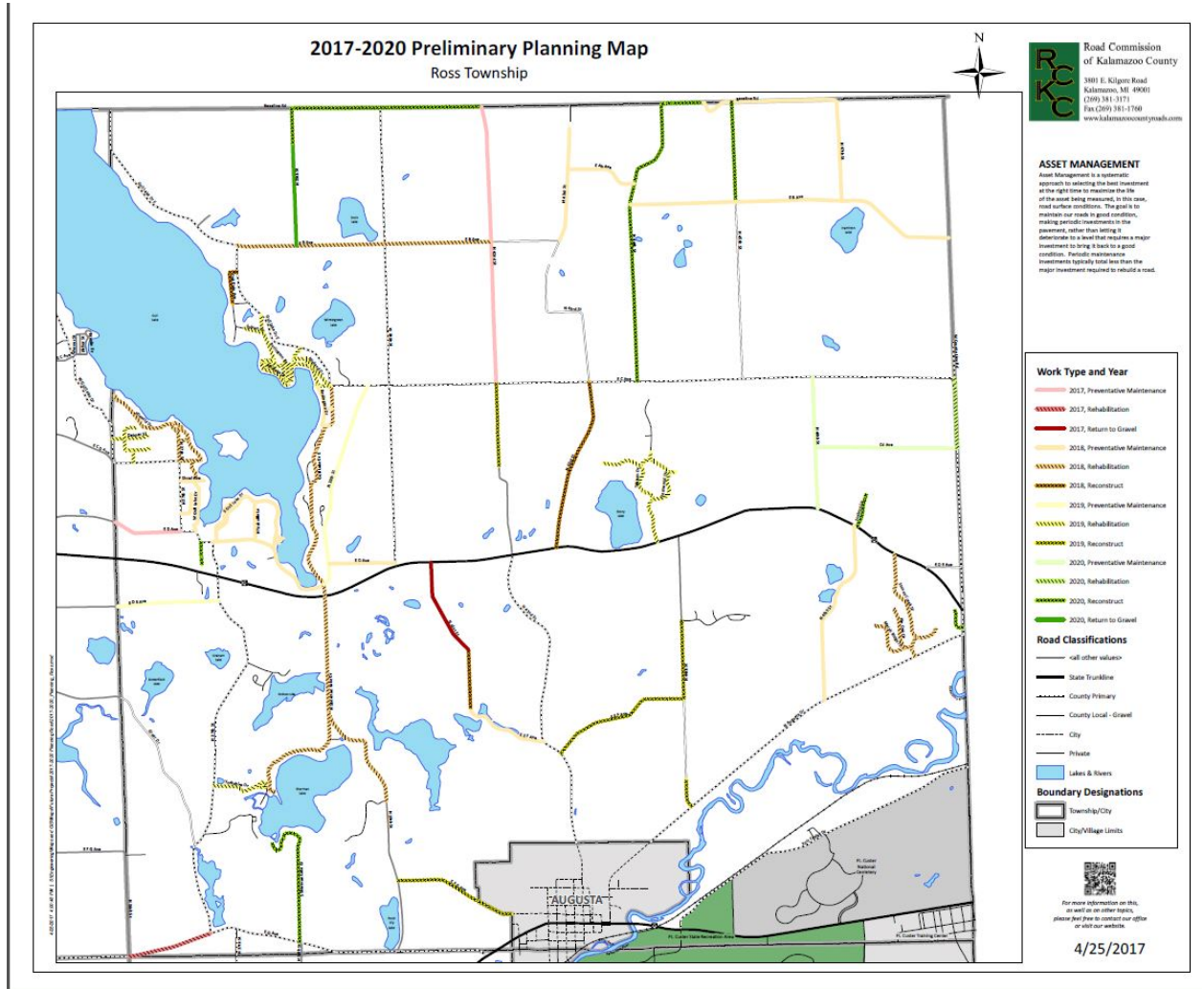
The RCKC team, amongst all departments, assisted in developing a plan to respond to the township’s request and provide deliverables. The RCKC team began with identifying areas of concern and areas for opportunity. One of the key areas was the field work necessary to estimate all of the local projects for

improvement. Due to the volume of this particular request, staff from the engineering department assisted in gathering the data and dimensions of the local roads within Ross Township to create individual project estimates. The RCKC team then re-grouped to review the data and begin the process of building an updated 3 year local road CIP and planning maps. Projects were color coded by year and treatment type making it easier for residents to understand the plan. Internal meetings were held with all RCKC departments to review capacity. Contractors were also contacted to review their capacity. The RCKC finance department reviewed options to address cash flow and timely invoicing.

A presentation was prepared by the RCKC to begin a series of town hall meetings in the township to share background on funding infrastructure in Michigan, the RCKC and Ross Township (see attached presentation). We consider these meetings critical to the success and support of the investment needed in Ross Township. The township and the RCKC worked hand in hand delivering these presentations. We knew we needed to be open to critical comments, questions, costs and deliverables. A detailed comprehensive plan was created and shared at the public meetings to support the proposed improvements. Even with the plan, the key was delivering timely, quality work. The town hall meetings were intended to educate the residents on what the condition of the local roads were currently and what the plan was to bring them back to “good” condition. These town hall meetings were very well attended and provided lots of constructive feedback on the proposed plan. The residents participating in the town hall meetings expressed how pleased they were with RCKC’s and the township’s information and deliverables. After making a few plan adjustments with feedback received from the residents, the Township Board decided by resolution to approve a \$6.2 Million township wide special assessment. The increase from the \$5.6 million project estimates to \$6.2 million was for necessary to cover bonding fees, administration costs and cost of living increases.

A key consideration RCKC expressed to the township was the ability to maintain these roads after improvements and investment. The RCKC team shared the importance of long term planning and preventive maintenance to keep these roads in good condition.

Map showing preliminary plans for the road improvements, color coded by street, year of construction and type of construction



Ross Township Road Plan Summary

Treatment Type	Estimated Cost	Year	Road/ Plat Name	From Street	To Street	Miles	PASER Rating
Return to Gravel	\$67,704.00	2017	41st Street	5800' South of M-89	M-89	1.1	1
Preventive Maintenance	\$29,061.00	2017	42nd Street	C Avenue	B Avenue	1.01	8
Preventive Maintenance	\$38,102.00	2017	42nd Street	B Avenue	Baseline Road	1	6
Preventive Maintenance	\$25,124.00	2017	D Avenue	West Township Line	37th Street	0.53	6
Rehabilitation	\$145,210.00	2018	38th Street / 39th Street	4500' north of FG Avenue	D Avenue	1.7	4-5
Reconstruction	\$226,064.00	2018	41st Street	5800' South of M-89	M-89	1.1	1
Preventive Maintenance	\$27,113.00	2018	43rd Street	B Avenue	4364' north of B Avenue	0.83	6
Reconstruction	\$321,907.00	2018	43rd Street	M-89	C Avenue	1.25	1
Preventive Maintenance	\$43,437.00	2018	46th Street	Augusta Drive	M-89	1.36	6
Preventive Maintenance	\$32,535.00	2018	47th Street	B Avenue	Baseline Road	0.73	6
Preventive Maintenance	\$19,069.00	2018	AB Avenue	43rd Street	44th Street	0.53	5
Preventive Maintenance	\$91,411.00	2018	B Avenue	44th Street	48th Street	2.43	6
Rehabilitation	\$132,315.00	2018	B Avenue	East Gull Lake Drive	40th Street	1.08	3
Rehabilitation	\$85,882.00	2018	B Avenue	40th Street	42nd Street	0.78	5
Preventive Maintenance	\$35,451.00	2018	Baseline Road	800' west of 45th Street	47th Street	0.99	5-6
Preventive Maintenance	\$11,016.00	2018	D Avenue	39th Street	40th Street	0.48	5
Preventive Maintenance	\$45,843.00	2018	D Avenue	37th Street	38th Street	0.96	5
Rehabilitation	\$138,411.00	2018	East Gull Lake Drive	D Avenue	C Avenue	1.55	4
Preventive Maintenance	\$20,767.00	2018	EF Avenue	41st Street	42nd Street	0.67	6
Preventive Maintenance	\$101,402.00	2018	Franklin Beach, Half Moon Park, Indian Point			2.46	3-5
Rehabilitation	\$233,625.00	2018	Idlewild Plat			1.68	5
Rehabilitation	\$43,841.00	2018	Oakwood Park			0.27	3
Rehabilitation	\$99,509.00	2018	Sherman Lake Drive N	3605' west of 38th Street	38th Street	0.68	4
Preventive Maintenance	\$139,761.00	2018	Stoney Creek Plat			1.66	5
Preventive Maintenance	\$57,274.00	2019	39th Street	East Gull Lake Drive	C Avenue	1.5	8
Reconstruction	\$139,566.00	2019	42nd Street	4000' north of M-89	C Avenue	0.53	1
Reconstruction	\$22,000.00	2019	44th Street	Augusta Drive	2955' north of EF Avenue	0.1	3
Reconstruction	\$150,079.00	2019	44th Street	EF Avenue	2955' north of EF Avenue	0.57	3
Preventive Maintenance	\$27,839.00	2019	DE Avenue	West Township Line	37th Street	0.74	7
Reconstruction	\$274,248.00	2019	EF Avenue	42nd Street	44th Street	1.06	2
Reconstruction	\$254,938.00	2019	FG Avenue	39th Street	Augusta Village Limits	0.97	1
Rehabilitation	\$139,695.00	2019	Gull Vista Plat			0.76	5
Rehabilitation	\$325,500.00	2019	Midland Park Plat			2.1	3-4
Rehabilitation	\$307,696.00	2019	Trillium Plat			1.57	5-6
Rehabilitation	\$75,129.00	2019	York Shire Drive			0.53	5
Return to Gravel	\$56,353.00	2020	39th Street	B Avenue	Baseline Road	1	1
Reconstruction	\$593,584.00	2020	44th Street / Baseline Road	C Avenue	1920' east of 44th Street	2.47	1-2
Reconstruction	\$201,693.00	2020	45th Street	B Avenue	Baseline Road	0.75	2
Preventive Maintenance	\$27,820.00	2020	46th Street	M-89	C Avenue	0.96	7
Reconstruction	\$334,795.00	2020	Baseline Road	39th Street	42nd Street	1.31	2
Preventive Maintenance	\$30,439.00	2020	CD Avenue	46th Street	48th Street	1.03	8
Reconstruction	\$108,871.00	2020	Foxboro Lane			0.25	2
Reconstruction	\$50,445.00	2020	McDonald Street			0.2	3
Reconstruction	\$81,961.00	2020	Pine Brook Drive			0.16	3
Reconstruction	\$236,247.00	2020	Sherman Lake Drive S	G Avenue	4850' north of G Avenue	0.92	2
45	\$5,650,732.00					45.21	

*This plan does not include reconditioning gravel roads with new gravel or HMA Paving.

** This plan does not include Bridge or Culvert work greater than 42" in Diameter.

Project

The goal was to provide a strategic asset management improvement plan which could be supported by data and facts. The RCKC team responded and produced project estimates and an extensive 3 year Capital Improvement Plan (CIP), while minimizing the impact of other RCKC daily operations and service areas.

RCKC met the established goal of creating a 3 year, \$5,650,732.00 million Ross Township CIP to support Ross Township's infrastructure bonding proposal for local roads. This investment will significantly improve the overall PASER rating on all local roads in Ross Township and within Kalamazoo County. The RCKC will see long term routine maintenance savings on the 45.21 miles of local roads improved as part of this plan.

Project construction began in May 2018. The 2018 projects outlined in the three year plan were completed by November 15, 2018 totaling:

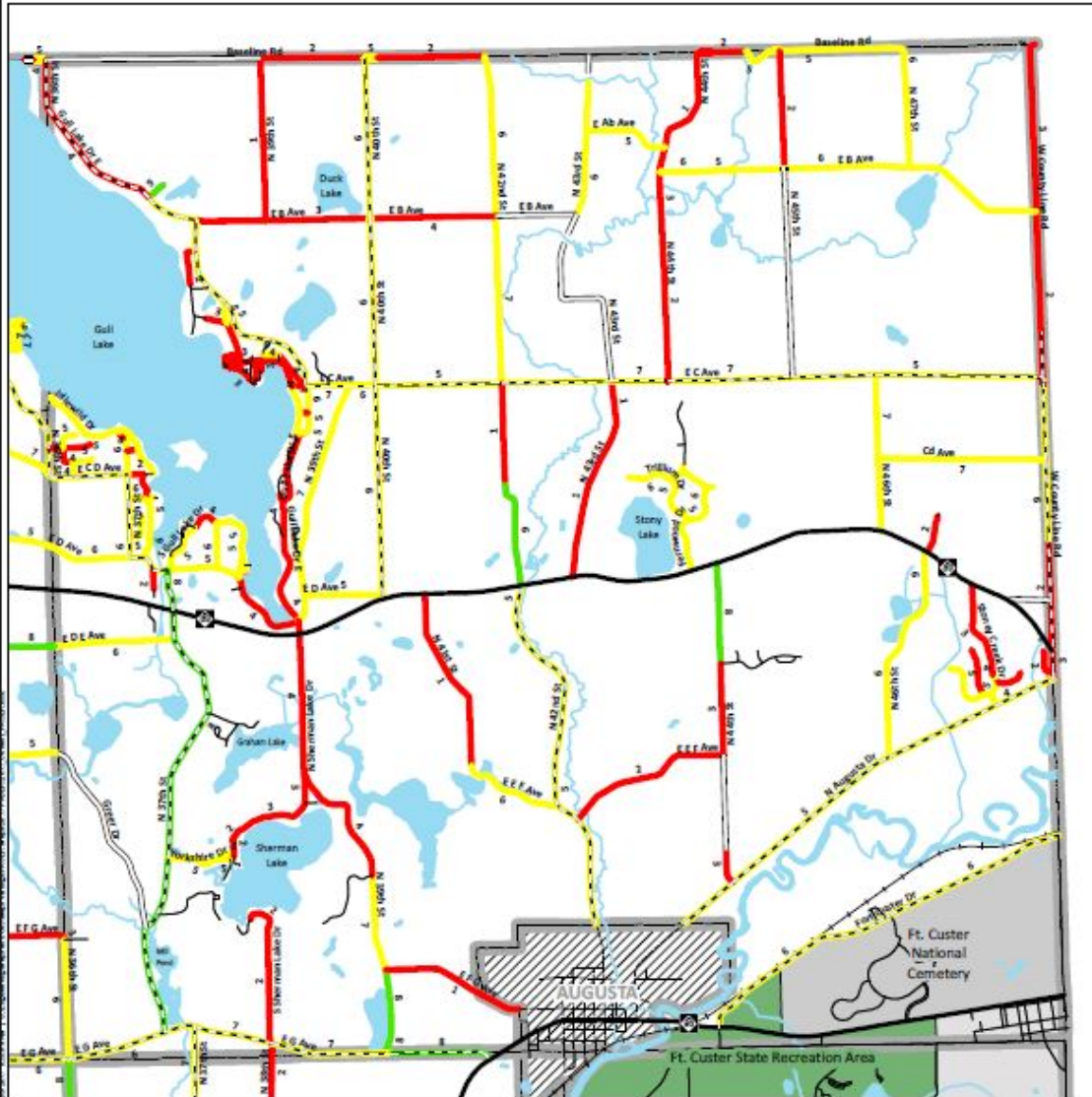
- 24 miles of local road improvements
- 26,803 tons of Hot Mix Asphalt (HMA)
- 161,568 Square Yards of Cold Milling
- 6 Culvert replacements
- 29,795 Square Yards of Pulverization
- Replaced 134 road signs

The 2018 local road project costs totaled \$2,042,305.00, which was funded by RCKC Participation funds (PAR) along with Ross Township special assessment and general funds. The township and RCKC received positive feedback from the residents.

The 2017 average local road PASER rating in Ross Township was 4.31. At the end of 2018 the average PASER rating was 6.02. Ross Township showed the largest PASER improvement out of 15 townships in 2018.

The RCKC will be continuing projects in 2019 with the road improvement plan fully complete by the end of the 2020 construction season.

2017 Current Asset Management Ratings Map Ross Twp



ASSET MANAGEMENT

Asset Management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured, in this case, road surface conditions. The goal is to maintain our roads in good condition, making periodic investments in the pavement, rather than letting it deteriorate to a level that requires a major investment to bring it back to a good condition. Periodic maintenance investments typically total less than the major investment required to rebuild a road.

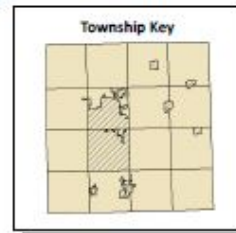
PASER RATINGS

PASER stands for Pavement Surface Evaluation and Rating. The PASER rating scale ranges from 1, failed condition, to 10, brand new pavement. A pavement will only be a 10 the first year of its life, the second year it may automatically become a 9. Any condition of 8 or greater is considered to be a good condition, 7, 6 or 5 are fair, 4 or lower is poor.

- PASER based on 2016 ratings and project improvements.
- Private and Gravel roads not rated.

THE RIGHT FIX AT THE RIGHT TIME

The RCKC determines the best fix to optimize service life for each of our projects. Good pavement management involves less expensive treatments earlier in the life of the pavement in order to take full advantage of infrastructural investments.



Road Classification	Road Ratings	Boundary Designations
— State Trunkline	— Good (10, 9, 8)	— Township/City
- - County Primary	— Fair (7, 6, 5)	— City/Village Limits
— County Local - Gravel	— Poor (4, 3, 2, 1)	— Lakes & Rivers
— City	— Private Roads (Not Rated)	
— Private		



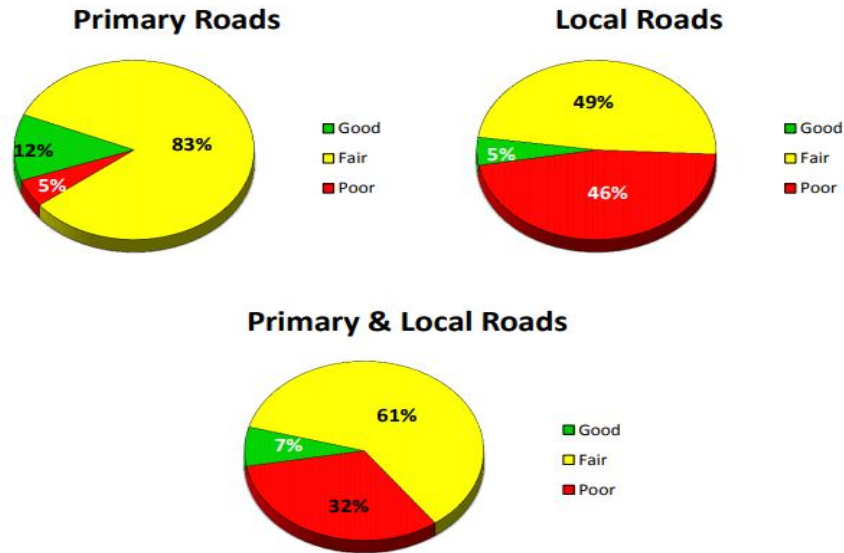
For more information on this, as well as on other topics, please feel free to contact our office or visit our website.



Road Commission of Kalamazoo County
1801 E. Ridge Road
Kalamazoo, MI 49001
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www.kalamazoo-county.com

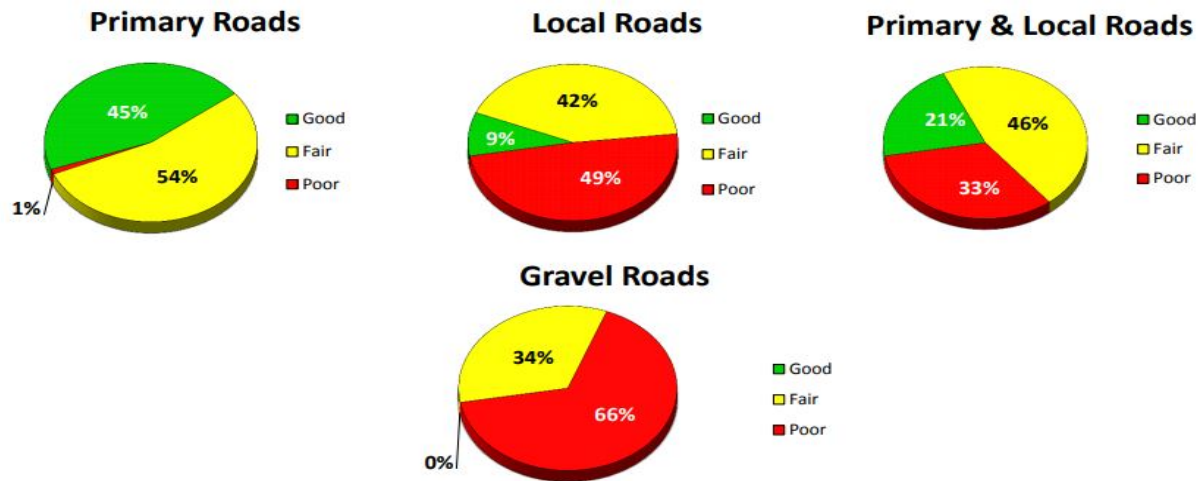
Award
page

2017
Ross Township Surface Rating Summary



*Good (PASER rating ≥8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤4)
PASER Data does not include gravel roads.

2018
Ross Township Surface Rating Summary



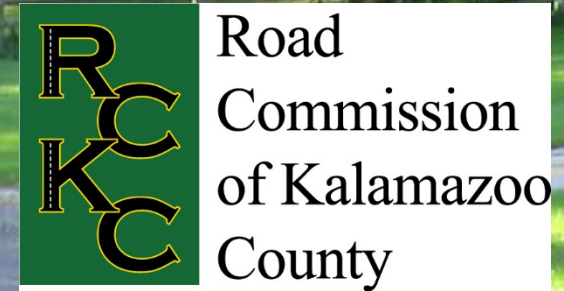
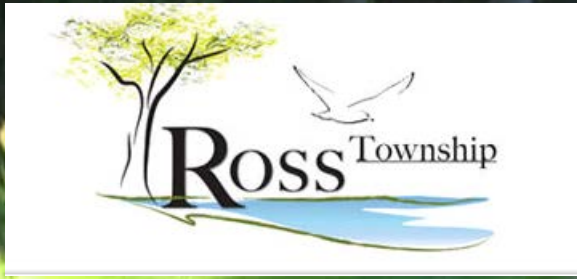
*Good (rating ≥8), Fair (rating = 7, 6, 5) & Poor (rating ≤4)
Paved Roads rated using the Pavement Surface Evaluation and Rating (PASER). Gravel Roads rated using Inventory Based Rating (IBR).

Pictures of 2018 Projects









Ross Township and the Road Commission of Kalamazoo County (RCKC)

*Investing in **Roads** NOW*

For our FUTURE



WELCOME TOWN HALL MEETING

Thursday, June 8, 2017



AGENDA

A. RCKC Information

A. Funding

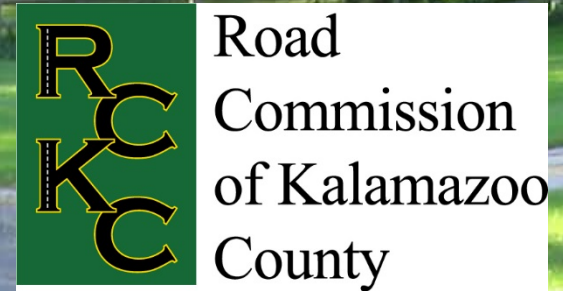
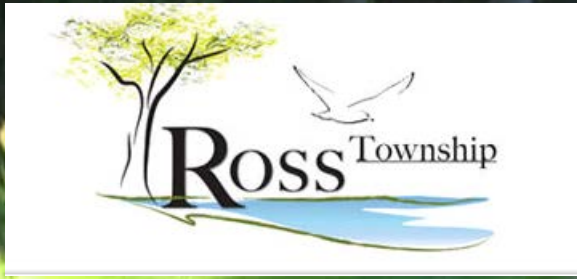
B. Asset Management

B. Ross Township Process

C. Ross Township Conclusions

D. Summary/Next Steps

E. Questions



Road Commission of Kalamazoo County (RCKC)

Your Local Road Professional for over 107 Years

RCKC General Information

- **44 Employees – 28 Field Operations**
 - Managing Director, Joanna I. Johnson
 - Project Superintendent, Mark Worden
- **1,267 Miles**
 - 449 Primary Road Miles
 - 817 Local Road Miles
 - 103 Local Gravel Road Miles
 - 61 Bridges
 - 22,295 Signs
 - 47 Signalized Intersections



Road Commission Jurisdiction

- **Cities and villages are responsible for most roads inside their boundaries**
- **Road commissions have jurisdiction over the majority of roads in counties (including Townships)**
- **MDOT has jurisdiction on US-, M- and I- designated roads**

Michigan Transportation Fund (MTF) Revenue

- **Principal source of funding**
- **MTF is the fund into which all state collected, road revenues are deposited**
- **Primarily includes State gas and diesel taxes, vehicle registration fee, diesel carrier, license taxes**

New State Revenue Package

- **Effective January 2017; First Increase in State Road Funding in 20 years**
- **7.3 cent increase in State gas tax to 26.3 cents**
 - **Constitutionally dedicated to MTF**
 - **Note: MI also levies a sales tax at the pump, which most states do not; these taxes do not go into the MTF**
- **20% increase in State registration fees for passenger vehicles and most commercial trucks**
- **11.3 cent increase in Diesel fuel bringing it equal to State gas tax**
- **New taxes on alternative fuels and registration surcharges on electric vehicles**
- **Beginning in 2022, gas tax will be indexed, rising in proportion to increases in Consumer Price Index, or 5%, whichever is less**

Federal Road Funding

- **18.4¢-per-gallon federal gasoline tax**
- **24.4¢-per-gallon federal diesel tax**
- **92% of this tax returns to Michigan**
- **75% of federal funds go to MDOT**
- **25% is split between county road commissions, cities and villages**

Total Approximate Needs Today

- \$75,000,000 needed today to bring all paved roads into good condition
- \$39,500,000 needed today to bring all bridges into good condition
- \$3,000,000 needed today for gravel road maintenance
- \$4,700,000 needed today for traffic signals installation and maintenance
- ***TOTAL \$122,200,000***
 - We must use asset management to maintain our road system.



Road Funding

- County Road Commissions have no taxing authority
- Special assessments, local millage, county and township contributions
- Township has no obligation to expend funds on roads
- **Public Act 51: Road Commissions are limited on the amount of funds spent on local roads unless funds matched from other sources**

Local Road Funding Match

- Township General Fund
- Township Millage
 - Climax Township Millage
 - 1 mill, 10 years = Approx. \$65,000
- Township Special Assessments per Parcel
 - Alamo Township = Approx. \$160,000
 - Texas Township = Approx. \$360,000
- Bond Proposal
 - Kalamazoo Township \$9.75 million
- Michigan Compiled Law (MCL) 247.670 property tax not to exceed 3 mills in any year
 - Comstock Township = \$480,000



Local Road Participation Funds (PAR Funds)

- Allocated by RCKC to share in costs of local road improvements
- Based on mileage/population
- Provided to each of our 15 townships
- Matched dollar-for dollar
- \$1.4 million of Primary Road MTF for PAR Program in 2017

= Ross Township \$66,010



PASER System

GOOD

FAIR

POOR



PASER 10, 9, 8

Routine:

Crack Fill

Minor Patching



PASER 7, 6, 5

Preventive:

Chip Seal

Hot Mix Asphalt (HMA)

Wedging

Concrete Joint Repair



PASER 4, 3, 2, 1

Rehabilitation/

Reconstruction:

Resurface

Pulverize/HMA Paving

Replace Concrete Slab

Reconstruction

Cost of Treatments Increases With Time



Approaches to Managing Assets

Worst First

Spend money reconstructing and rehabilitate poor roads

Little or no preventive maintenance

Few miles of high-cost fixes

**Ross Township Worst First
over 5 years = \$8.4 million**

Mix of Fixes

Spend money on preventive maintenance of good roads

Reconstruction if money permits

Many miles of low-cost fixes

**Ross Township Mix of Fixes
over 5 years = \$5.2 million**

MIX OF FIXES

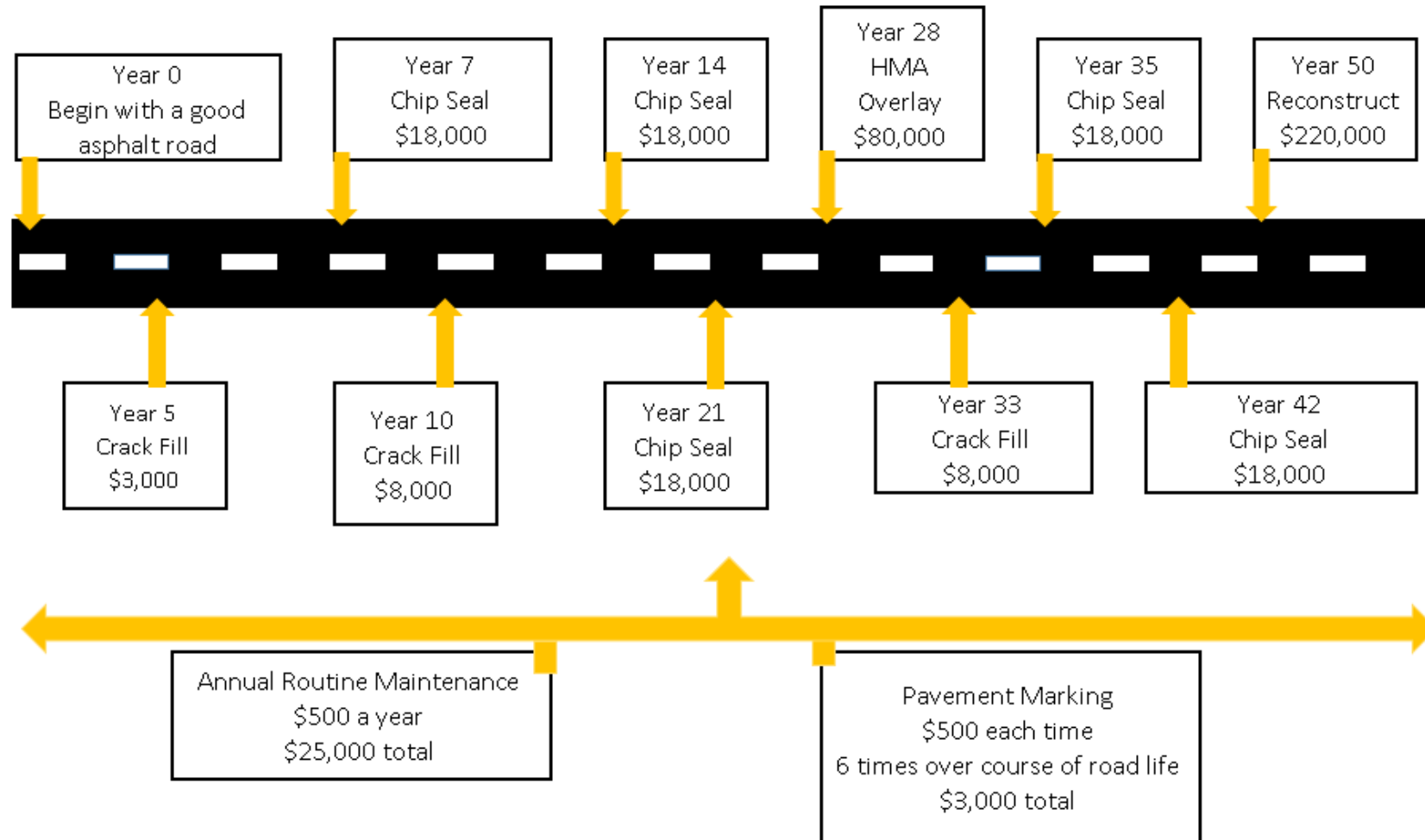
Preventive Maintenance Projects will include treating road surfaces with a combination of spot cold milling, hot mix asphalt (HMA) wedging, crack fill, and chip seal.

Rehabilitation Projects will require more extensive repairs, cold milling the entire road surface to a depth of 1-2 inches and replacing it with one lift of new HMA.

Reconstruction Projects require the most work to repair the road. These will require removing 3-4 inches of the existing asphalt pavement and repaving the road with 2 lifts of HMA.

Life of an Asphalt Road

\$437,000 = \$8,740 annually



Cost are approximate for road surface improvements and do not include cost increases
\$409,000 is subject to our Local Road Participation Fund Program

Failed Condition Local Road Policy

- **Designate Failed Road**
 - Public process
- **Short Term 6 months**
 - Rough Road Advisory Signs
 - Reducing Speed (when applicable)
- **With local participation**
 - RCKC will absorb pulverization costs
- **If no local participation, will effect Future Local Road Participation Funds for Township for cost to return to gravel**

Ross Township Considerations:

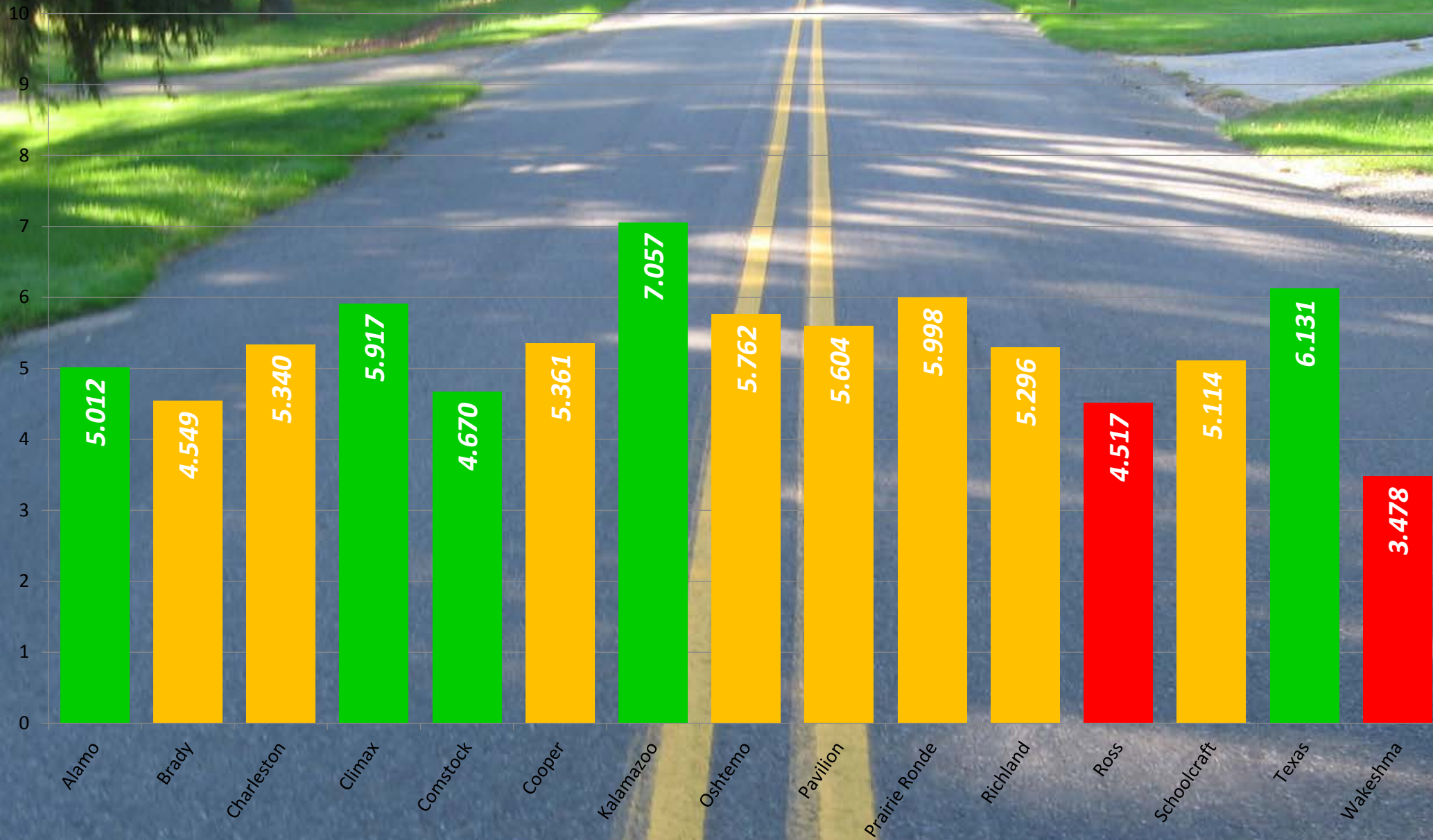
41st Street
42nd Street
PASER 1

How did we get here in Ross Township?

- 20 years of project investment approximately
\$2.8 million
- 20 years of needed project investment
approximately
\$8.3 million
- The DIFFERENCE: \$5.5 million

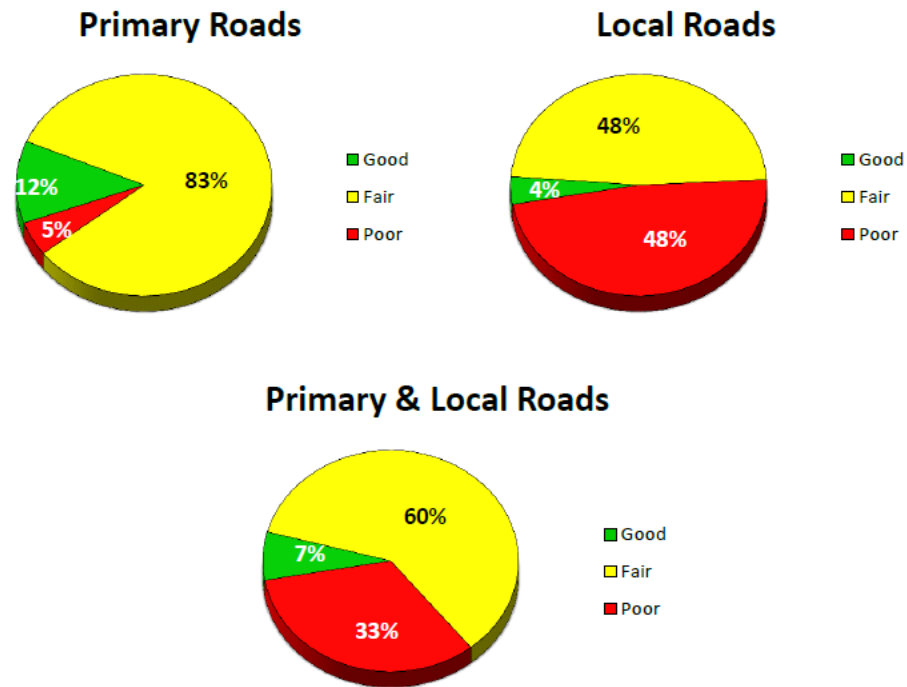
2017 Local Road Summary

Average PASER Rating by Township



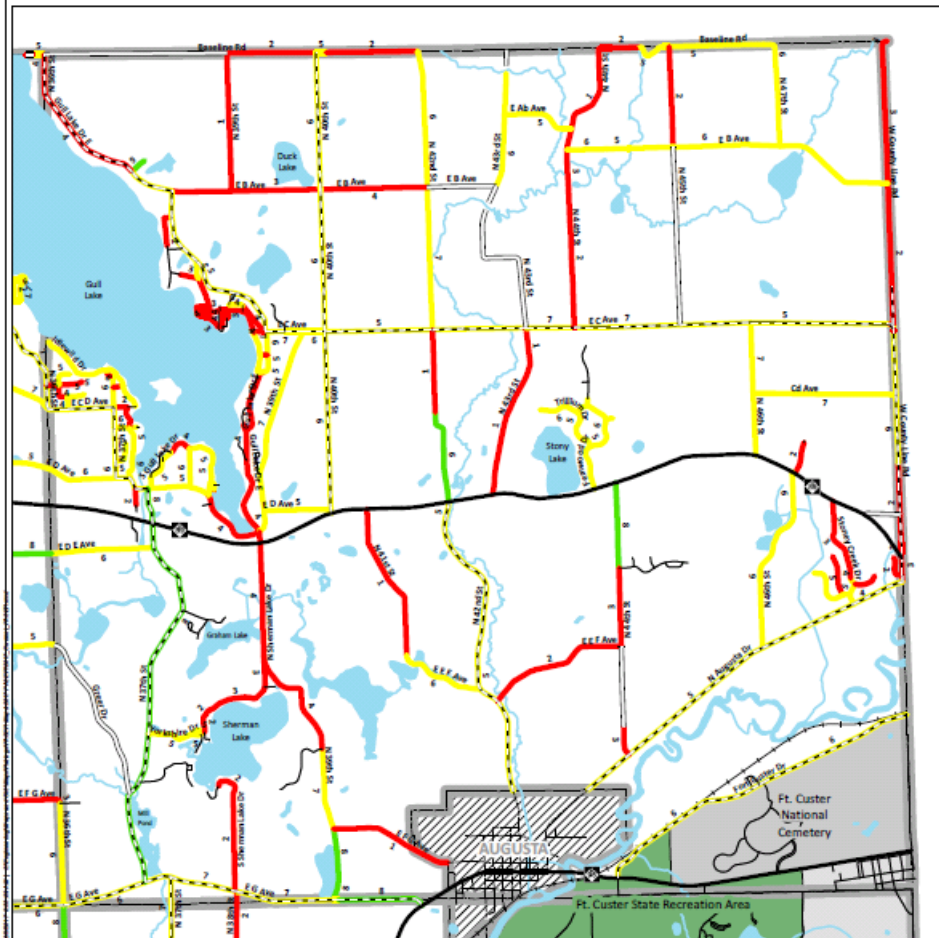
2017 Ross Township

2017
Ross Township Surface Rating Summary



*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
PASER Data does not include gravel roads.

2017 Current Asset Management Ratings Map Ross Twp



ASSET MANAGEMENT

Asset Management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured, in this case, road surface conditions. The goal is to maintain our roads in good condition, making periodic investments in the pavement, rather than letting it deteriorate to a level that requires a major investment to bring it back to a good condition. Periodic maintenance investments typically total less than the major investment required to rebuild a road.






PASER RATINGS

PASER stands for Pavement Surface Evaluation and Rating. The PASER rating scale ranges from 1, failed condition, to 10, brand new pavement. A pavement will only be a 10 the first year of its life, the second year it may automatically become a 9. Any condition of 8 or greater is considered to be a good condition, 7, 6 or 5 are fair, 4 or lower is poor.

THE RIGHT FIX AT THE RIGHT TIME

The KCRC determines the best fix to optimize service life for each of our projects. Good pavement management involves less expensive treatments earlier in the life of the pavement in order to take full advantage of infrastructural investments.


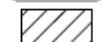
Road Classifications

-  State Trunkline
-  County Primary
-  County Local - Gravel
-  City
-  Private

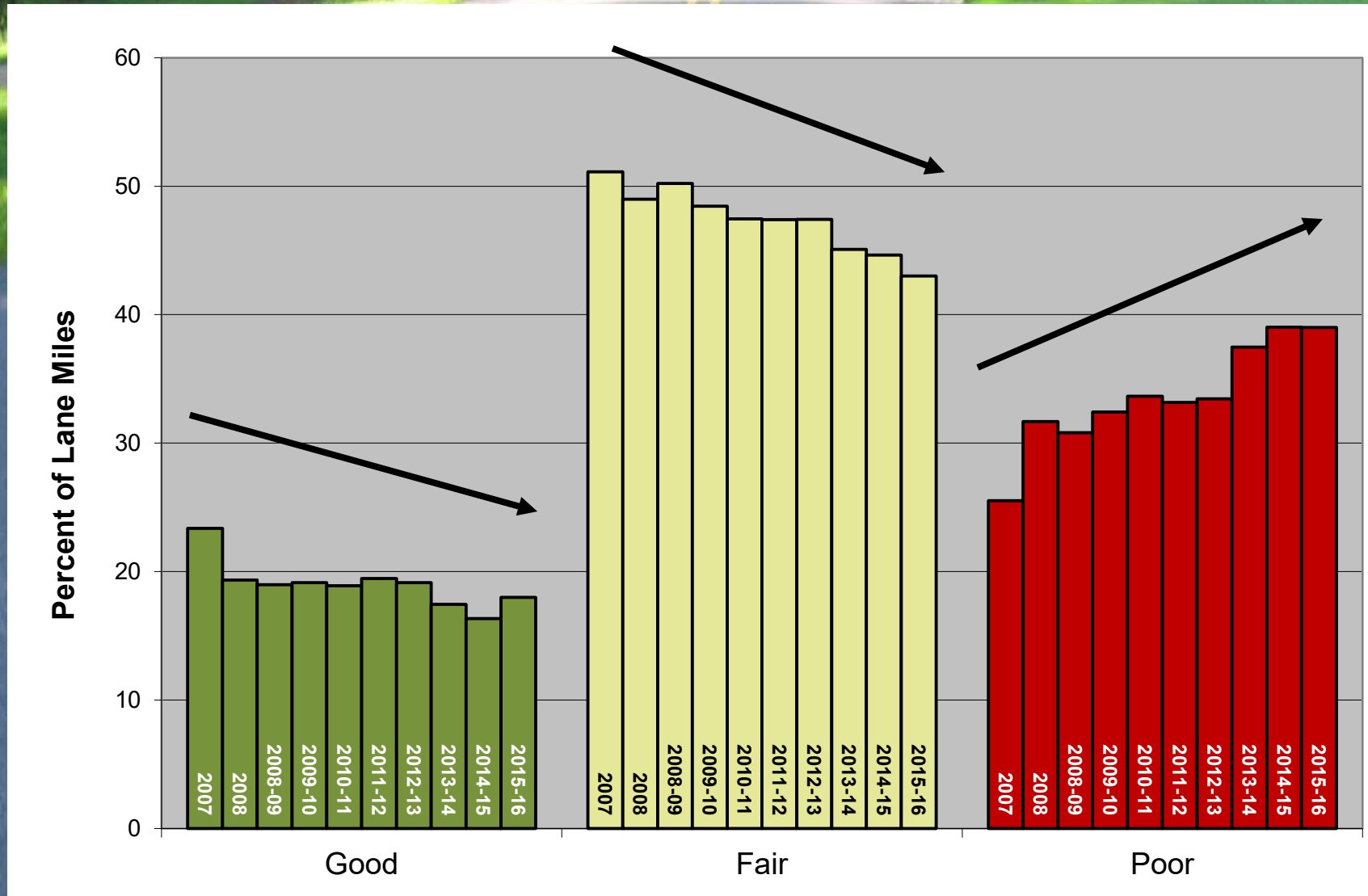
Road Ratings

-  Good (8, 9, 10)
-  Fair (7, 6, 5)
-  Poor (4, 3, 2, 1)
-  Private Roads (Not Rated)
-  Lakes & Rivers

Boundary Designations

-  Township/City
-  City/Village Limits

Statewide Paved Federal-Aid Road Condition 2007 - 2016



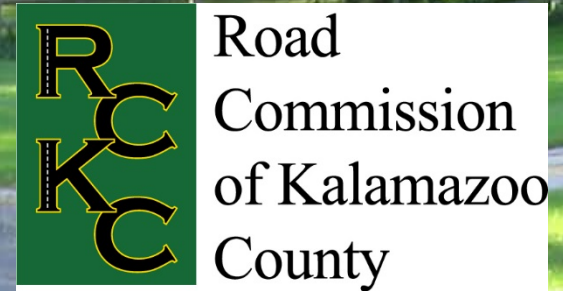
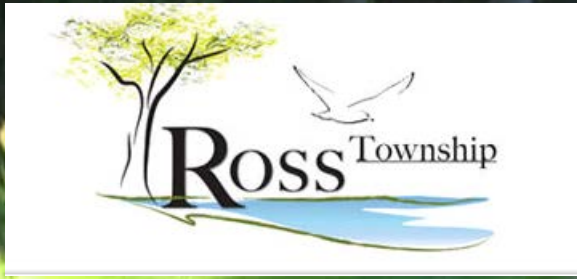
RCKC Communication

- Updated Website www.kalamazooountyroads.com
 - “Contact Us” - Service Requests, Agenda, Minutes, Project Information, Newsletter, Annual Report, Road Data, Budget, Purchasing, etc.
- Telephone 269-381-3171
 - Service Requests logged and tracked
 - We want your service requests!!
 - Emergency after hours call 9-1-1 Dispatch
- Television
 - RCKC Board meetings televised on Public Media Network or watch from our website link
- Facebook www.facebook.com/kalamazooountyroads
 - Daily updates on roadwork around the county
 - “Contact Us” Button to submit a Service Request
- RCKC CONNECT – alert system

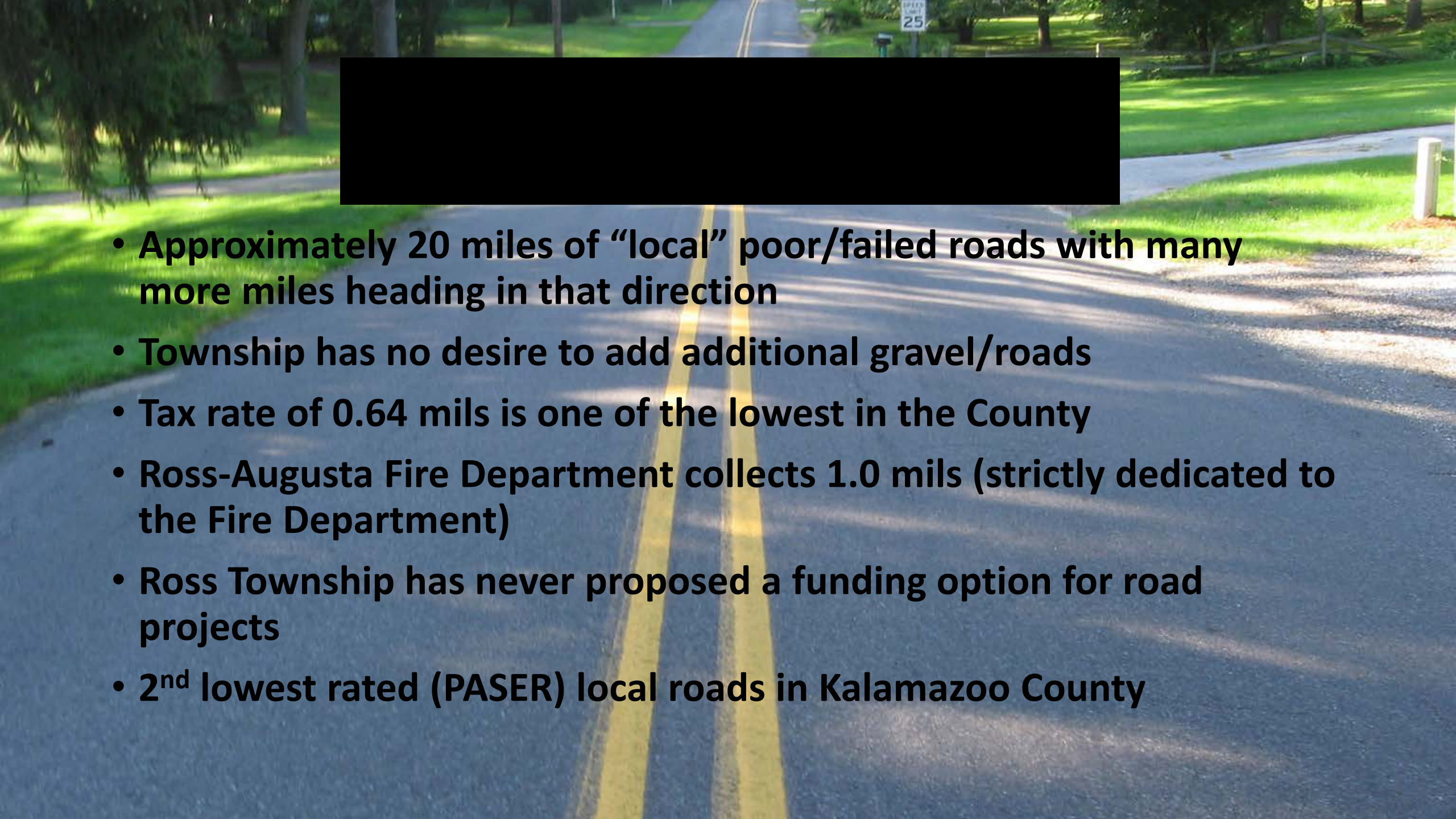
RCKC Communication

- Sign UP:
 - From your Mobile Phone go to RCKC Website (*automatic mobile application upon sign up*)
 - From your Computer to RCKC website.
 - You can then go to the Mobile Member Application – “EverbridgeCONTACTBRIDGE” to CONNECT on your Mobile Phone too!
- Alerts provided to your choice:
 - Emails
 - Home Phone
 - Text
 - Mobile Phone
- Road Construction, Detours/Road Closures, & General Public News





Ross Township

- 
- Approximately 20 miles of “local” poor/failed roads with many more miles heading in that direction
 - Township has no desire to add additional gravel/roads
 - Tax rate of 0.64 mils is one of the lowest in the County
 - Ross-Augusta Fire Department collects 1.0 mils (strictly dedicated to the Fire Department)
 - Ross Township has never proposed a funding option for road projects
 - 2nd lowest rated (PASER) local roads in Kalamazoo County

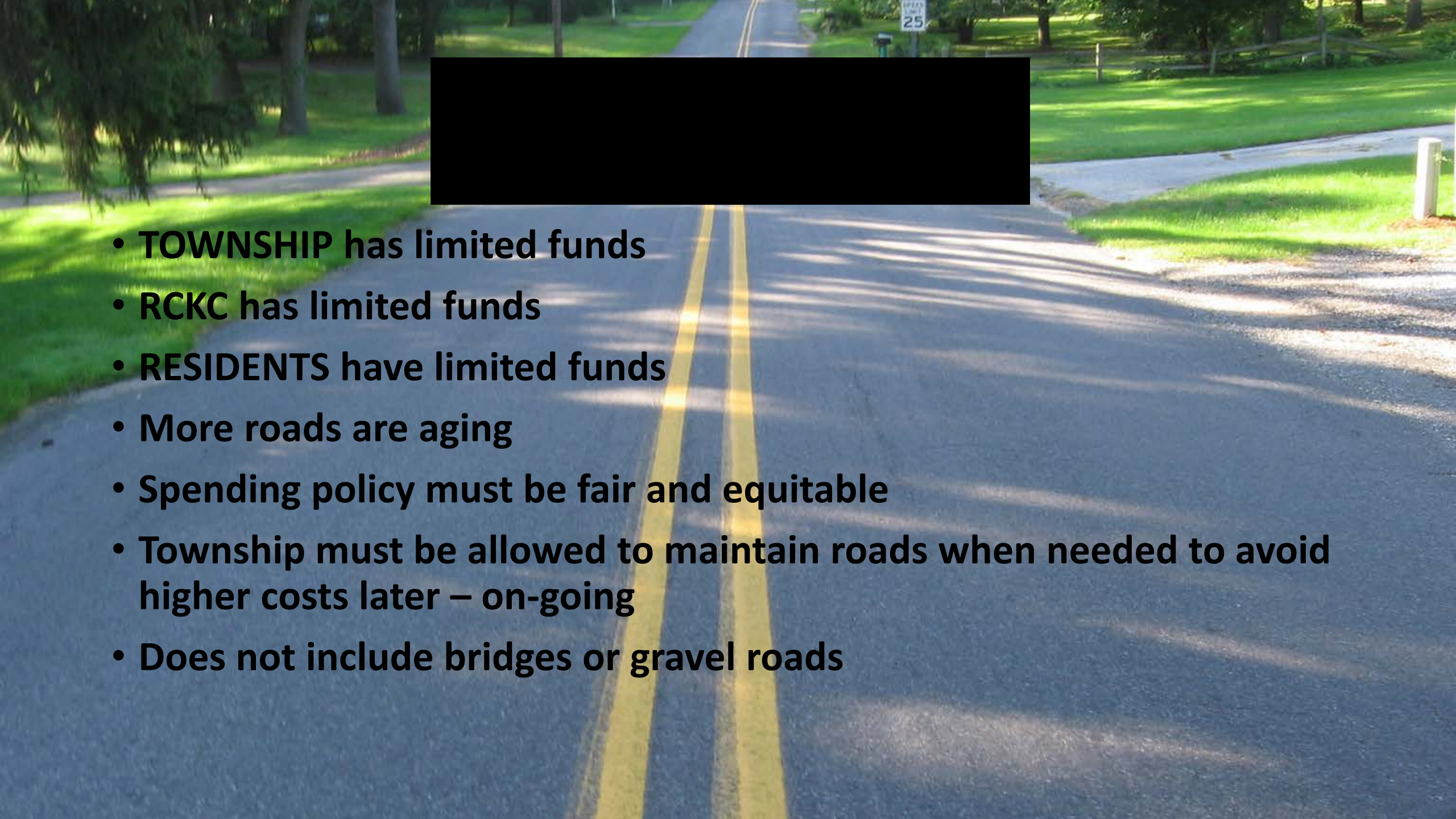


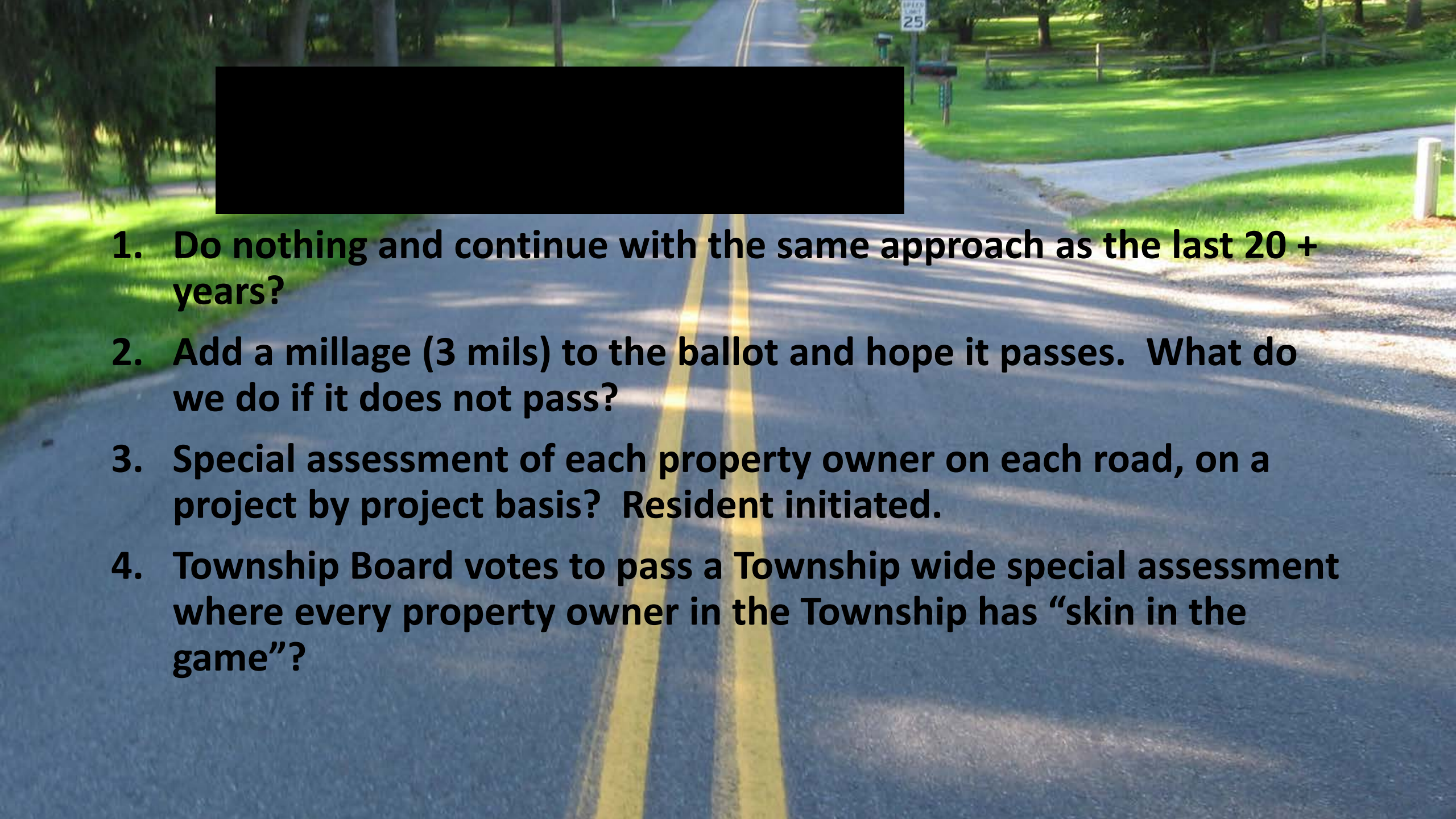
- **Primary Road Miles – 26**

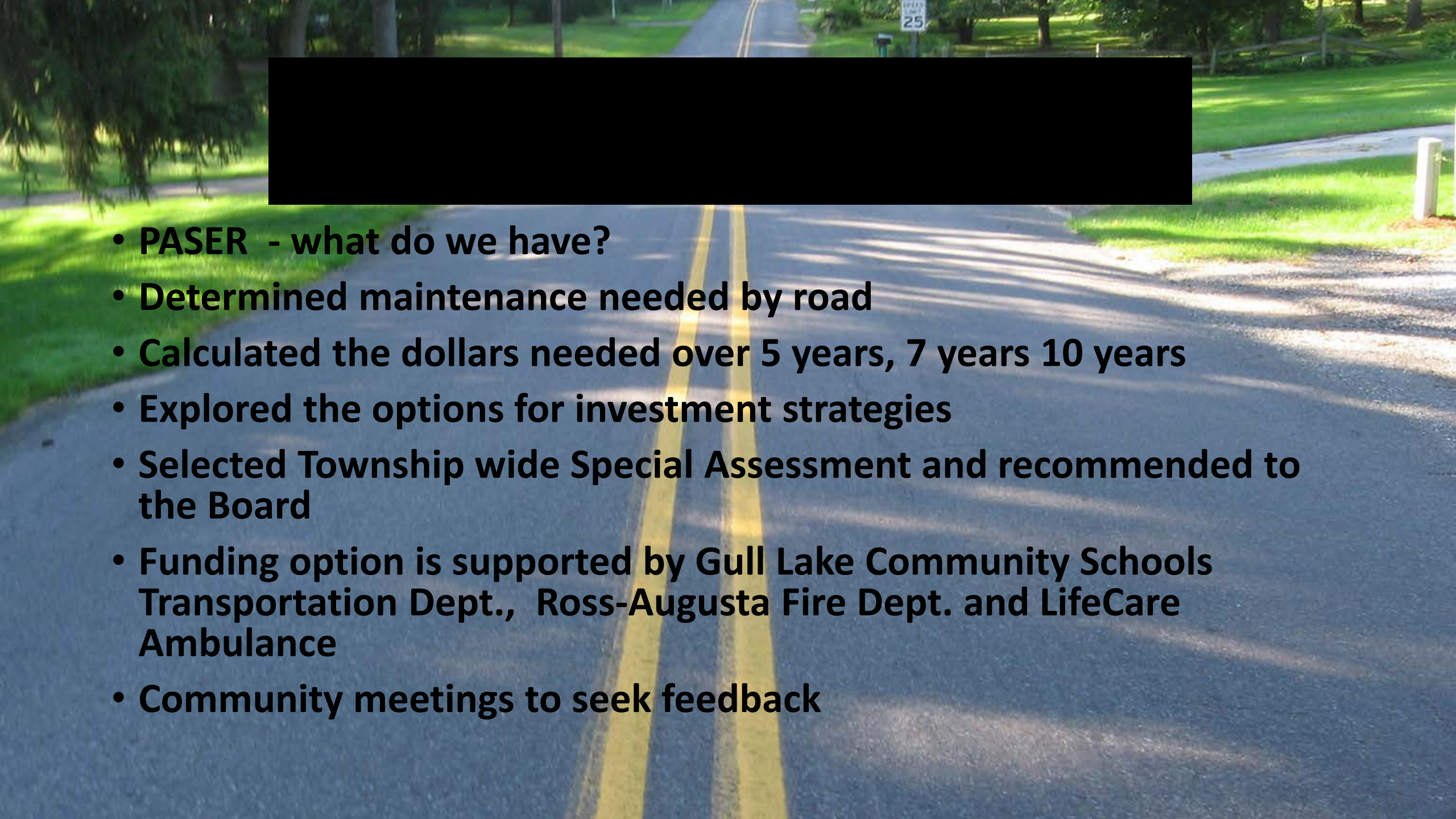
- **Local Road Miles – 53**

- **5.52 Miles Gravel**



- 
- **TOWNSHIP** has limited funds
 - **RCKC** has limited funds
 - **RESIDENTS** have limited funds
 - More roads are aging
 - Spending policy must be fair and equitable
 - Township must be allowed to maintain roads when needed to avoid higher costs later – on-going
 - Does not include bridges or gravel roads

- 
- 1. Do nothing and continue with the same approach as the last 20 + years?**
 - 2. Add a millage (3 mils) to the ballot and hope it passes. What do we do if it does not pass?**
 - 3. Special assessment of each property owner on each road, on a project by project basis? Resident initiated.**
 - 4. Township Board votes to pass a Township wide special assessment where every property owner in the Township has “skin in the game”?**

- 
- **PASER - what do we have?**
 - **Determined maintenance needed by road**
 - **Calculated the dollars needed over 5 years, 7 years 10 years**
 - **Explored the options for investment strategies**
 - **Selected Township wide Special Assessment and recommended to the Board**
 - **Funding option is supported by Gull Lake Community Schools Transportation Dept., Ross-Augusta Fire Dept. and LifeCare Ambulance**
 - **Community meetings to seek feedback**

TAXES ARE BASED UPON TAXABLE VALUE

1 MILL EQUALS \$1.00 PER \$1000 OF TAXABLE VALUE

(example based on a home with Taxable Value of \$100,000 and State Equalized Value (SEV) of \$200,000)

County Public Safety	1.44910 mills	\$144.91
KRESA ISD	6.40660 mills	\$640.66 (Kalamazoo Regional Educational Service Agency)
KVCC	2.81350 mills	\$281.35 (Kalamazoo Valley Community College)
Gull Lake (GL) Debt	4.04000 mills	\$404.00 (Galesburg School Residents pay 6.280)
Library-McKay	0.49520 mills	\$ 49.52
Township	0.64570 mills	\$ 64.57
Township Fire	0.99340 mills	\$ 99.34
Juvenile Home	0.23010 mills	\$ 23.01
County Transportation	0.40000 mills	\$ 40.00
Building & Sinking Fund	0.64710 mills	\$ 64.71
County Housing	0.10000 mills	<u>\$ 10.00</u>
		\$1822.07 (\$163.91)

(Less than 10% of the taxes paid stay directly in Ross Township)



CURRENT TAXES	\$201,900
STATE SHARED REVENUE	\$293,000
ADMINISTRATIVE FEES	\$105,000
CABLE FEES	\$ 50,000

NOTE: OTHER REVENUE (PARK FEES, BUILDING PERMITS, ETC) IS COLLECTED IN “IN-OUT” ACCOUNTS.




TOWNSHIP SALARIES, TAXES, BENEFITS **\$251,961**


*(INCLUDES ELECTED OFFICIALS, OFFICE PERSONNEL, BOARD MEMBERS,
ELECTION WORKERS, MAINTENANCE PERSON)*

POLICE (COUNTY SHERIFF) **\$123,400**

BUILDING EXPENSE (OFFICE/FIRE STATION) **\$101,000**

ROAD PROJECTS (2017) **\$ 92,000**

- 
- **Public Act 188 – may be initiated by two methods**
 - **By the record owners of lands whose frontage constitutes not less than 51 percent of the total frontage upon the highway improvements.**
 - **By the Township Board upon its own initiative.**

- 
- Township Board starts process (may adjust specifics based on comments at Public Hearings or Town Hall Meetings)
 - Board passes Resolution of Intent
 - Hold 1st Public Hearing to Establish District
 - Township votes to establish SA District
 - Township determines amount to charge
 - 1st Class Mail to everyone in district with \$ amount
 - Hold 2nd Public Hearing to review SA roll
 - 30 days for written appeal to tax tribunal
 - Bill on Winter tax invoice
 - \$5.5 million dollars worth of road projects begin Spring 2018 and completed in 2020



Total Estimated Cost of Construction and Engineering **\$5,490,741**

Total Estimated Project Cost (Bonding to complete all in 3 years) **\$6,009,343**

(Includes all associated Legal Fees, Bond Counsel, Treasury Fees, and a 7% Contingency for cost increases due to inflation)

Township Estimated Contribution (over 3 years) **(\$450,000)**

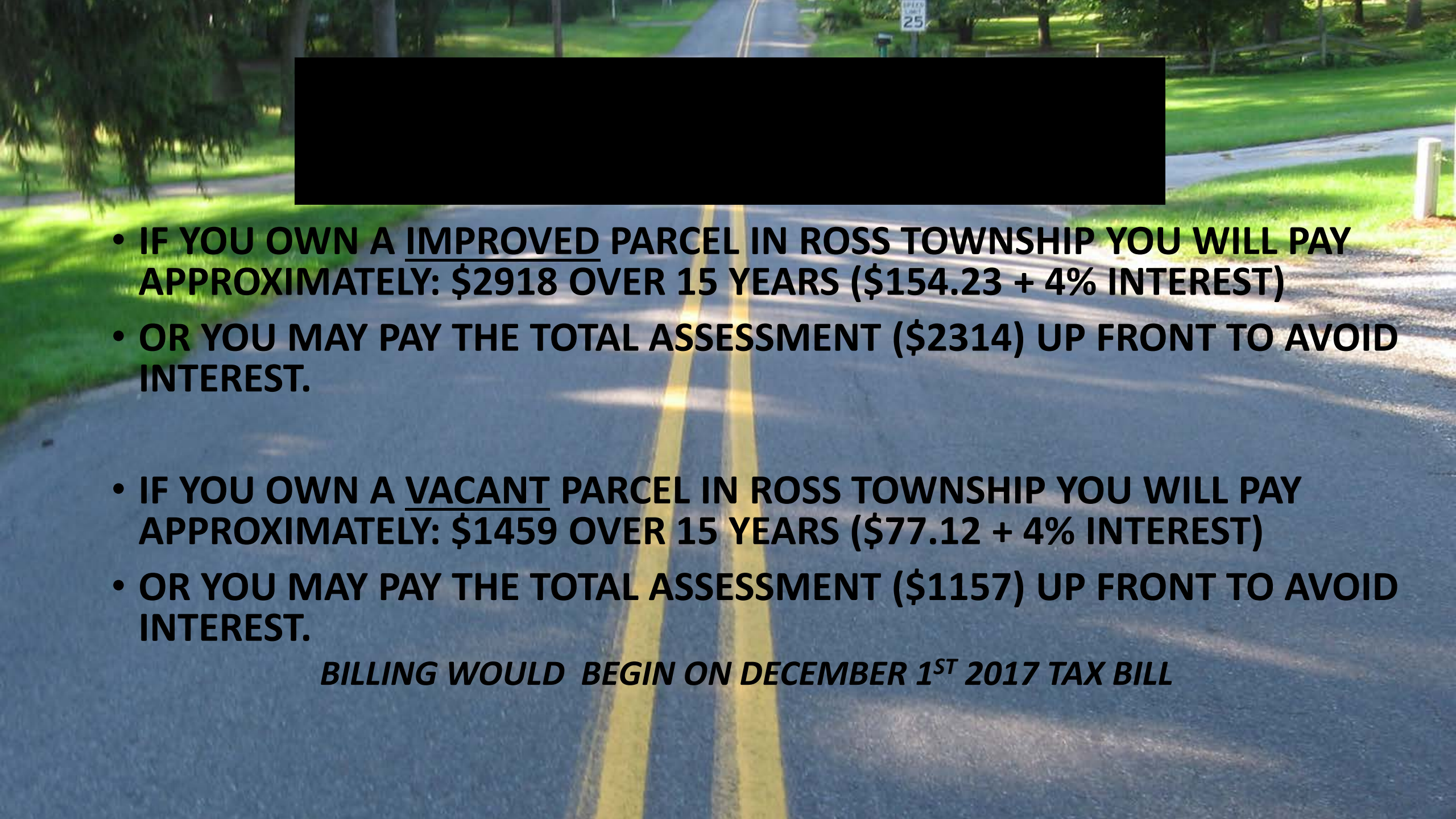
Amount Estimated To Be Assessed **\$5,559,343**

Ross Township Road Plan Summary

Treatment Type	Estimated Cost	Year	Road/ Plat Name	From Street	To Street	Miles	PASER Rating
Return to Gravel	\$67,704.00	2017	41st Street	5800' South of M-89	M-89	1.1	1
Preventive Maintenance	\$29,061.00	2017	42nd Street	C Avenue	B Avenue	1.01	8
Preventive Maintenance	\$38,102.00	2017	42nd Street	B Avenue	Baseline Road	1	6
Preventive Maintenance	\$25,124.00	2017	D Avenue	West Township Line	37th Street	0.53	6
Rehabilitation	\$145,210.00	2018	38th Street / 39th Street	4500' north of FG Avenue	D Avenue	1.7	4-5
Reconstruction	\$226,064.00	2018	41st Street	5800' South of M-89	M-89	1.1	1
Preventive Maintenance	\$27,113.00	2018	43rd Street	B Avenue	4364' north of B Avenue	0.83	6
Reconstruction	\$321,907.00	2018	43rd Street	M-89	C Avenue	1.25	1
Preventive Maintenance	\$43,437.00	2018	46th Street	Augusta Drive	M-89	1.36	6
Preventive Maintenance	\$32,535.00	2018	47th Street	B Avenue	Baseline Road	0.73	6
Preventive Maintenance	\$19,069.00	2018	A8 Avenue	43rd Street	44th Street	0.53	5
Preventive Maintenance	\$91,411.00	2018	B Avenue	44th Street	48th Street	2.43	6
Rehabilitation	\$132,315.00	2018	B Avenue	East Gull Lake Drive	40th Street	1.08	3
Rehabilitation	\$85,882.00	2018	B Avenue	40th Street	42nd Street	0.78	5
Preventive Maintenance	\$35,451.00	2018	Baseline Road	800' west of 45th Street	47th Street	0.99	5-6
Preventive Maintenance	\$11,016.00	2018	D Avenue	39th Street	40th Street	0.48	5
Preventive Maintenance	\$45,843.00	2018	D Avenue	37th Street	38th Street	0.96	5
Rehabilitation	\$138,411.00	2018	East Gull Lake Drive	D Avenue	C Avenue	1.55	4
Preventive Maintenance	\$20,767.00	2018	EF Avenue	41st Street	42nd Street	0.67	6
Preventive Maintenance	\$101,402.00	2018	Franklin Beach, Half Moon Park, Indian Point			2.46	3-5
Rehabilitation	\$233,625.00	2018	Idlewild Plat			1.68	5
Rehabilitation	\$43,841.00	2018	Oakwood Park			0.27	3
Rehabilitation	\$99,509.00	2018	Sherman Lake Drive N	3605' west of 38th Street	38th Street	0.68	4
Preventive Maintenance	\$139,761.00	2018	Stoney Creek Plat			1.66	5
Preventive Maintenance	\$57,274.00	2019	39th Street	East Gull Lake Drive	C Avenue	1.5	8
Reconstruction	\$139,566.00	2019	42nd Street	4000' north of M-89	C Avenue	0.53	1
Reconstruction	\$22,000.00	2019	44th Street	Augusta Drive	2955' north of EF Avenue	0.1	3
Reconstruction	\$150,079.00	2019	44th Street	EF Avenue	2955' north of EF Avenue	0.57	3
Preventive Maintenance	\$27,839.00	2019	DE Avenue	West Township Line	37th Street	0.74	7
Reconstruction	\$274,248.00	2019	EF Avenue	42nd Street	44th Street	1.06	2
Reconstruction	\$254,938.00	2019	FG Avenue	39th Street	Augusta Village Limits	0.97	1
Rehabilitation	\$139,695.00	2019	Gull Vista Plat			0.76	5
Rehabilitation	\$325,500.00	2019	Midland Park Plat			2.1	3-4
Rehabilitation	\$307,696.00	2019	Trillium Plat			1.57	5-6
Rehabilitation	\$75,129.00	2019	York Shire Drive			0.53	5
Return to Gravel	\$56,353.00	2020	39th Street	B Avenue	Baseline Road	1	1
Reconstruction	\$593,584.00	2020	44th Street / Baseline Road	C Avenue	1920' east of 44th Street	2.47	1-2
Reconstruction	\$201,693.00	2020	45th Street	B Avenue	Baseline Road	0.75	2
Preventive Maintenance	\$27,820.00	2020	46th Street	M-89	C Avenue	0.96	7
Reconstruction	\$334,795.00	2020	Baseline Road	39th Street	42nd Street	1.31	2
Preventive Maintenance	\$30,439.00	2020	CD Avenue	46th Street	48th Street	1.03	8
Reconstruction	\$108,871.00	2020	Foxboro Lane			0.25	2
Reconstruction	\$50,445.00	2020	McDonald Street			0.2	3
Reconstruction	\$81,961.00	2020	Pine Brook Drive			0.16	3
Reconstruction	\$236,247.00	2020	Sherman Lake Drive S	G Avenue	4850' north of G Avenue	0.92	2
45	\$5,650,732.00					45.21	


*This plan does not include reconditioning gravel roads with new gravel or HMA Paving.

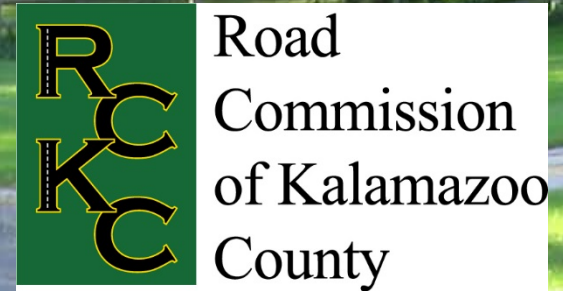
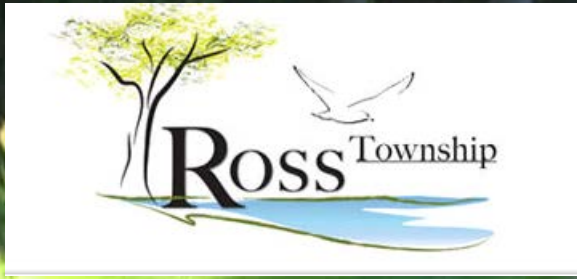
** This plan does not include Bridge or Culvert work greater than 42" in Diameter.

- 
- IF YOU OWN A IMPROVED PARCEL IN ROSS TOWNSHIP YOU WILL PAY APPROXIMATELY: \$2918 OVER 15 YEARS (\$154.23 + 4% INTEREST)
 - OR YOU MAY PAY THE TOTAL ASSESSMENT (\$2314) UP FRONT TO AVOID INTEREST.

 - IF YOU OWN A VACANT PARCEL IN ROSS TOWNSHIP YOU WILL PAY APPROXIMATELY: \$1459 OVER 15 YEARS (\$77.12 + 4% INTEREST)
 - OR YOU MAY PAY THE TOTAL ASSESSMENT (\$1157) UP FRONT TO AVOID INTEREST.

BILLING WOULD BEGIN ON DECEMBER 1ST 2017 TAX BILL

- 
- DOES NOT INCLUDE THE VILLAGE OF AUGUSTA
 - IMPROVED PARCELS = APPROX. 2016
 - VACANT PARCELS = APPROX. 774
 - TOTAL PARCELS INCLUDED IN ASSESSEMENT = APPROX. 2790



THANK YOU - QUESTIONS

*Investing in **Roads** NOW*

For our FUTURE





2016 Ross TOWNSHIP, ESTIMATED IMPROVEMENT COSTS FOR LOCAL ROADS

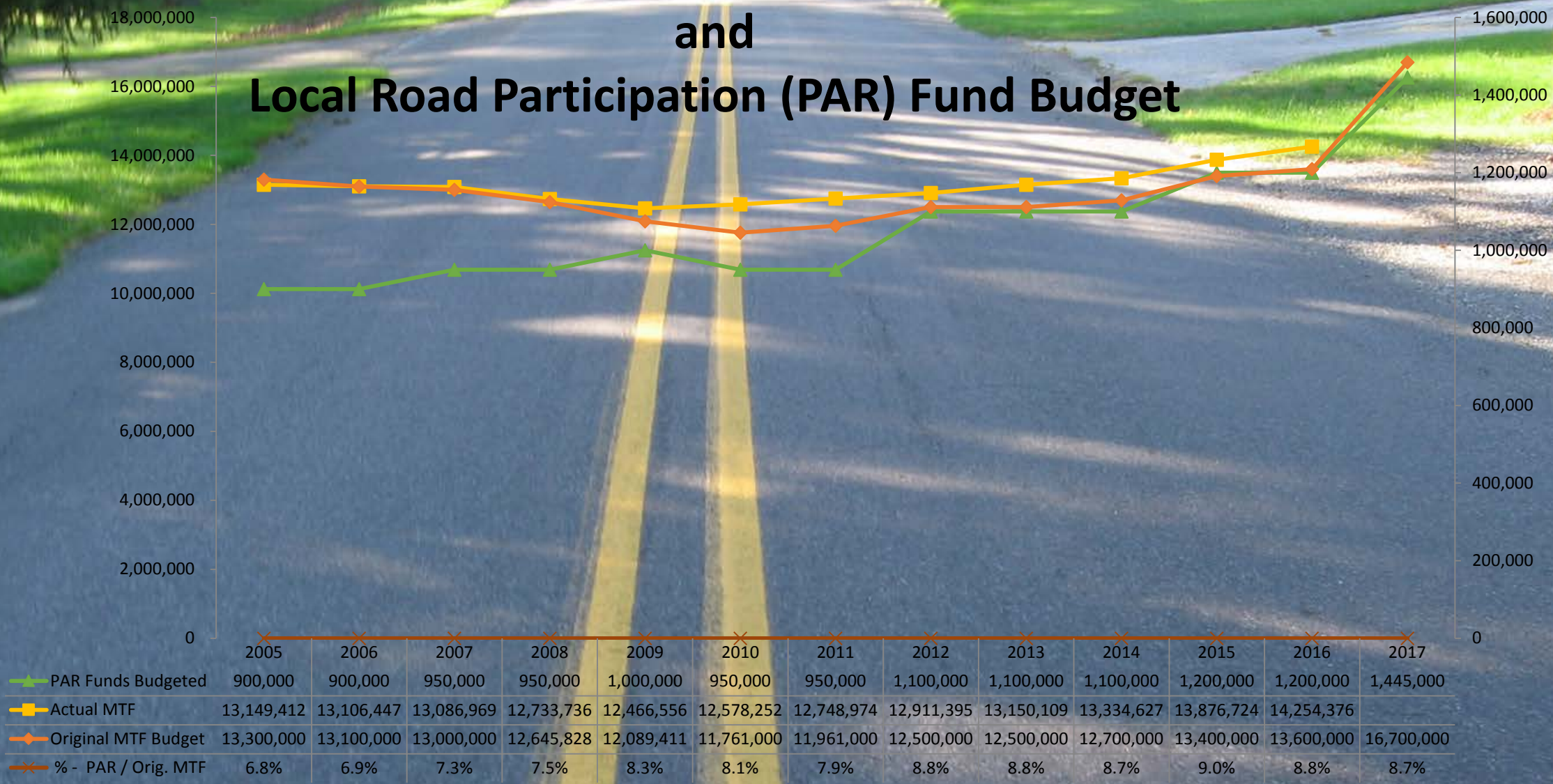
Pavement Surface Evaluation and Rating (PASER)

	10	9	8	7	6	5	4	3	2	1	*TOTAL COST
LOCAL LANE MILES	0	0.604	4.595	2.061	11.623	8.841	4.874	4.644	6.09	5.278	48.61
*COST PER MILE	\$ -	\$ -	\$ 5,000	\$ 10,000	\$ 20,000	\$ 50,000	\$ 100,000	\$ 200,000	\$ 250,000	\$ 300,000	
*TOTAL COST PER PASER RATING	\$ -	\$ -	\$ 22,975	\$ 20,610	\$ 232,460	\$ 442,050	\$ 487,400	\$ 928,800	\$ 1,522,500	\$ 1,583,400	\$ 5,240,195

*Costs listed above are for estimated planning purposes only. The estimated figures are based on best available information. Funding and budgets may vary. Estimated figures are based on approximate calculations for quantities, treatment costs and miles. The figures do not include unforeseen infrastructure issues, bridges, drainage, continued road deterioration or cost of living increases.

Funding needed using asset management to improve all streets	\$ 5,240,195	divided by	5 Years	equals	\$ 1,048,039	per year
Funding needed using asset management to improve all streets	\$ 5,483,895	divided by	7 Years	equals	\$ 783,414	per year
Funding needed using worst first approach to improve all streets	\$ 8,384,690	divided by	5 Years	equals	\$ 1,676,938	per year
Funding needed to maintain asphalt roads after improvements	\$ 8,000	Mutiplied by	48.61 Miles	equals	\$ 388,880	per year
Funding needed to maintaining gravel roads	\$ 2,700	Mutiplied by	5.4 Miles	equals	\$ 14,580	per year
Total roads funds needed to maintain all roads					\$ 403,460	per year

Michigan Transportation Fund (MTF) History and Local Road Participation (PAR) Fund Budget



Nomination 2019 Transportation Asset Management Council (TMAC) Award

Project Name: Wakeshma Township Local Road Millage
Completion Date: November 2018
Public Agency: Road Commission of Kalamazoo County (RCKC) & Wakeshma Township
Managing Agency: RCKC
3801 E Kilgore Road
Kalamazoo MI 49001
269-381-3171/Fax 269-381-1760
www.kalamazooountyroads.com
Travis Bartholomew, Operations Director
tbartholomew@kalamazooountyroads.com

Wakeshma Township
13988 South 42nd Street
Fulton, MI 49052
www.wakeshma township.com

Primary Contractor: RCKC



The project impacted local roads within Wakeshma Township. The township decided to put forth a road millage to voters on November 6, 2018. Wakeshma Township has the poorest condition local roads per Pavement Surface Evaluation and Rating (PASER) rating in Kalamazoo County. Before this proposed millage the township has never proposed a funding option for local roads or any road related millage.

Background

Wakeshma Township has a total of 47 miles of local roads. The population of Wakeshma Township is 1,301. The taxable value is \$67,632.856, which is the lowest township taxable value in Kalamazoo County. The total Wakeshma Township budget is \$191,825.02.

The RCKC worked with the Wakeshma Township Officials and their Road Committee which was made up of township residents passionate about improving road conditions. RCKC and the Road Committee met during evening hours on several occasions to discuss different Capital Improvement Plans with varying construction timelines and different funding options. The role of each Road Committee member was to educate and as needed advocate on why this millage is needed. The role of the RCKC was to educate and not advocate based on data and asset management. Local Road Participation (PAR) Funds are allocated to 15 townships by the RCKC in Kalamazoo County and must be matched dollar for dollar. Wakeshma Township has contributed less than \$30,000 on average per year of the last 5 years toward local road improvements. Wakeshma's unmatched (PAR) funds were redistributed to the other townships. The

RCKC prepared a 10 year plan, built on the principles of asset management, so residents knew what local road treatments would be done and when they would be constructed.

The Road Committee members were made up of 4 key members of the community. One which lived on a gravel road, one on a primary road, one where the road would return to gravel in the plan. The Road Committee efforts were outstanding. It included them reaching out through Facebook, letters to all the residents, signs posted throughout the township, postcards/flyers to invite residents to informational meetings and articles in the local newspapers. The Road Committee invested time into education, planning and funding options by working with the RCKC over the last year and half through many meetings in preparation. The Road Committee presented their option to the Wakeshma Township Board on August 6, 2018 and received unanimous support to move forward.

Resident informational meetings were held on August 6th, September 4th and October 4th to discuss and hear questions and concerns from residents. At the informational meetings, the Road Committee members presented, "we cannot even afford to turn our local roads back to gravel based on the township's budget". Road Committee members also attended Wakeshma Township Board meetings to share information and answer questions.

Together a 10-year plan to reconstruct, rehabilitate and preserve the local roads was completed which would be funded by placing a road millage question on the November 6, 2018 ballot.

The efforts of Wakeshma Township and the RCKC began over a year and a half prior to the ballot question. There were many meetings, many options to review and consider. The Road Committee was instrumental, as were the informational meetings and communication efforts. Today, we can say that on November 6, 2018 the residents of Wakeshma Township approved the road millage 354 to 191. Together we look forward to delivering the plan the Wakeshma Township residents entrusted in us.

Jason Gatlin, Wakeshma Township Supervisor stated, " The Road Committee did an amazing job taking the time to work with RCKC to assess our local road assets, using traffic counts and PASER ratings they developed a prioritized project list with associated costs. The Road Committee held numerous joint meetings with RCKC and Wakeshma residents to inform and educate on our current road situation and explain why they felt it was a good time to invest in our local road assets. Looking at the road millage results; Wakeshma residents agree it is time to invest in our local road network".

Project

The millage consists of an increase of up to 3.0 mills (\$3.00 per \$1,000 of taxable value) in the tax limitation imposed under Article IX, Sec. 6 of the Michigan Constitution and levy it for 10 years, 2018 through 2028, inclusive for local road repairs, upgrades, construction, improvement and maintenance purposes, which 3.0 mill increase will raise an estimated \$202,900 in the first year the millage is levied.

10 Year Road Plan Includes

- 23 Miles of Gravel Roads being Reconditioned (Add 4 inches of Gravel)
- 4.1 Miles of hard surfaced road being returned to gravel (Add 4 inches of gravel then pulverize, grade and compact)
- 5 miles of hard surfaced roads being reconstructed (Add 4 inches of gravel then pulverize and repave with two lifts of HMA)
- 9.3 Miles of Preventative Maintenance (Chip Seal)
- 0.2 Miles of Rehabilitation (Repave with one lift of HMA)
- 1 Bridge replacement
- TOTAL 41.6 Miles of Road Projects



Pictures of signs that the Road Committee made and posted throughout the township.

VOTE ON NOVEMBER 6th
SAVE WAKESHMA LOCAL ROADS



IMPORTANT

INFORMATIONAL LOCAL ROAD MEETING AT WAKESHMA

TOWNSHIP HALL OCTOBER 1ST, 2018 AT 7:30PM

Refreshments will be Served Courtesy of Road Committee



WAKESHMA TOWNSHIP TAXES COLLECTED

TAXES ARE BASED UPON TAXABLE VALUE

1 MILL EQUALS \$1.00 PER \$1000 OF TAXABLE VALUE

(example based on a home with Taxable Value of \$100,000 and State Equalized Value (SEV) of \$200,000)

County Public Safety	1.44910 mills	\$144.91
KRESA ISD	6.40280 mills	\$640.28 (Kalamazoo Regional Educational Service Agency)
KVCC	2.80890 mills	\$280.89 (Kalamazoo Valley Community College)
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Township Fire	0.99640 mills	\$ 99.64
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County Transportation	0.31450 mills	\$ 31.45
County Housing	0.09980 mills	\$ 9.98
		\$3613.91 (\$198.97)

(Less than 1% of the taxes paid stay directly in Wakeshma Township)

WAKESHMA TOWNSHIP REVENUE SOURCES

(EXCLUDES \$\$\$'S COLLECTED FOR FIRE)

CURRENT TAXES	\$63,306.68
STATE SHARED REVENUE	\$104,739.00
ADMINISTRATIVE FEES	\$23,779.34

NOTE: OTHER REVENUE (BUILDING PERMITS, ETC) IS COLLECTED IN "IN-OUT" ACCOUNTS.

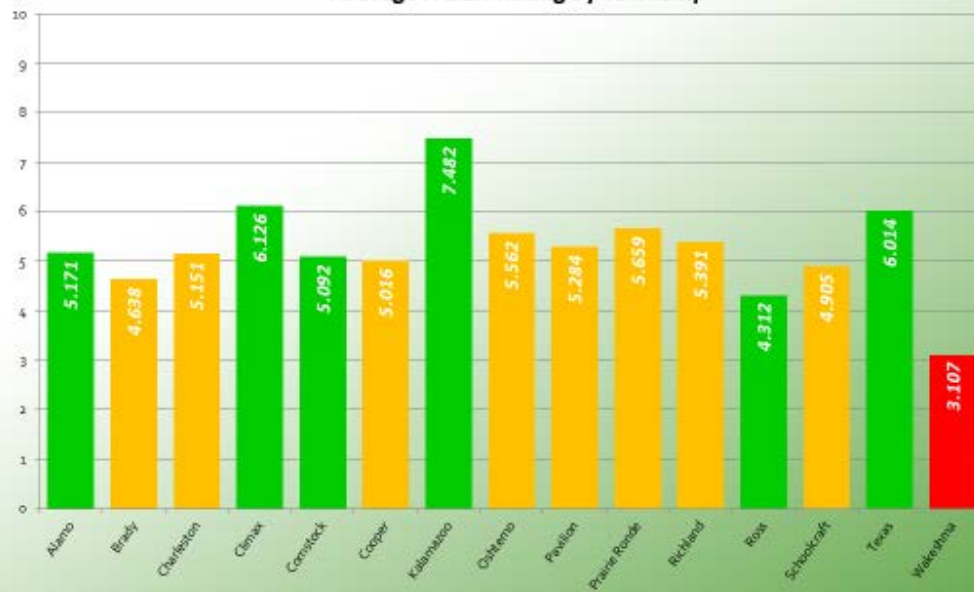
WAKESHMA TOWNSHIP BUDGETED 2017-2018 EXPENSES

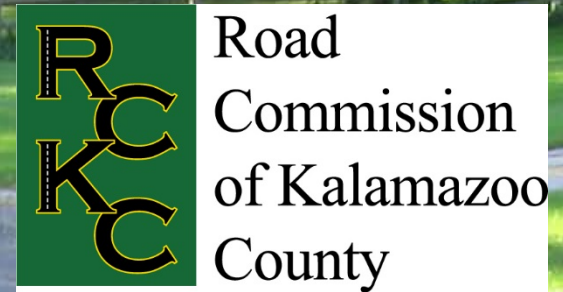
(EXCLUDES \$\$\$'S COLLECTED FOR FIRE)

TOWNSHIP SALARIES, TAXES, BENEFITS	\$42,681.04
BUILDING EXPENSE	\$4,900
ROAD PROJECTS (2018)	\$52,668.20
OPERATING EXPENSES	\$91,575.78

2018 Local Road Summary

Average PASER Rating by Township





Wakeshma Township and the Road Commission of Kalamazoo County (RCKC)

*Investing in **Roads** NOW*

For our FUTURE



WELCOME INFORMATIONAL MEETING

Monday, August 6, 2018 6:00pm

AGENDA

A. RCKC Information

A. Funding

B. Asset Management

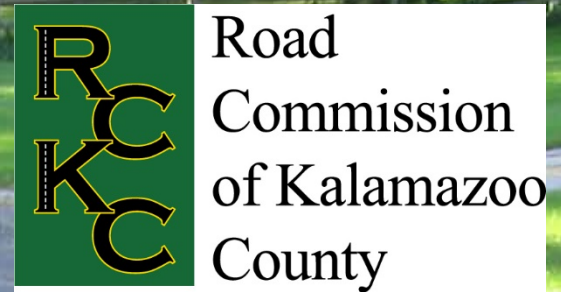
B. Wakeshma Township Process

C. Wakeshma Township Conclusions

D. Summary/Next Steps

E. Questions

- Please hold your questions until the end of the presentation**



Road Commission of Kalamazoo County (RCKC)

Your Local Road Professional for over 108 Years

RCKC General Information

- **44 Employees – 28 Field Operations**
 - Managing Director, Joanna I. Johnson
 - Operations Directors, Travis Bartholomew
- **1,267 Miles**
 - 447 Primary Road Miles
 - 820 Local Road Miles
 - 103 Local Gravel Road Miles
 - 61 Bridges
 - 20,814 Signs
 - 47 Signalized Intersections



Road Commission Jurisdiction

- **Cities and villages are responsible for most roads inside their boundaries**
- **Road commissions have jurisdiction over the majority of roads in counties (including Townships)**
- **MDOT has jurisdiction on US-, M- and I- designated roads**

Michigan Transportation Fund (MTF) Revenue

- **Principal source of funding**
- **MTF is the fund into which all state collected, road revenues are deposited**
- **Primarily includes State gas and diesel taxes, vehicle registration fee, diesel carrier, license taxes**

New State Revenue Package

- Took into effect January 2017; First Increase in State Road Funding in 20 years
- 7.3 cent increase in State gas tax to 26.3 cents
 - Constitutionally dedicated to MTF
 - Note: MI also levies a sales tax at the pump, which most states do not; these taxes do not go into the MTF
- 20% increase in State registration fees for passenger vehicles and most commercial trucks
- 11.3 cent increase in Diesel fuel bringing it equal to State gas tax
- New taxes on alternative fuels and registration surcharges on electric vehicles
- Beginning in 2022, gas tax will be indexed, rising in proportion to increases in Consumer Price Index, or 5%, whichever is less

Federal Road Funding (Used on Primary Roads Only)

- 18.4¢-per-gallon federal gasoline tax
- 24.4¢-per-gallon federal diesel tax
- 92% of this tax returns to Michigan
- 75% of federal funds go to MDOT
- 25% is split between county road commissions, cities and villages

Road Funding

- **County Road Commissions have no taxing authority**
- **Special assessments, local millage, county and township contributions**
- **Township has no obligation to expend funds on roads**
- **Public Act 51: Road Commissions are limited on the amount of funds spent on local roads unless funds matched from other sources**

Local Road Participation Funds (PAR Funds)

- Allocated by RCKC to share in costs of local road improvements
- Based on mileage/population
- Provided to each of our 15 townships
- Matched dollar-for dollar
- \$1.7 million of Primary Road MTF for PAR Program in 2018 with PA 82 \$2 million
 - = Wakeshma Township \$59,164
 - +PA 82 \$10,440



Local Road Participation Funds (PAR Funds)

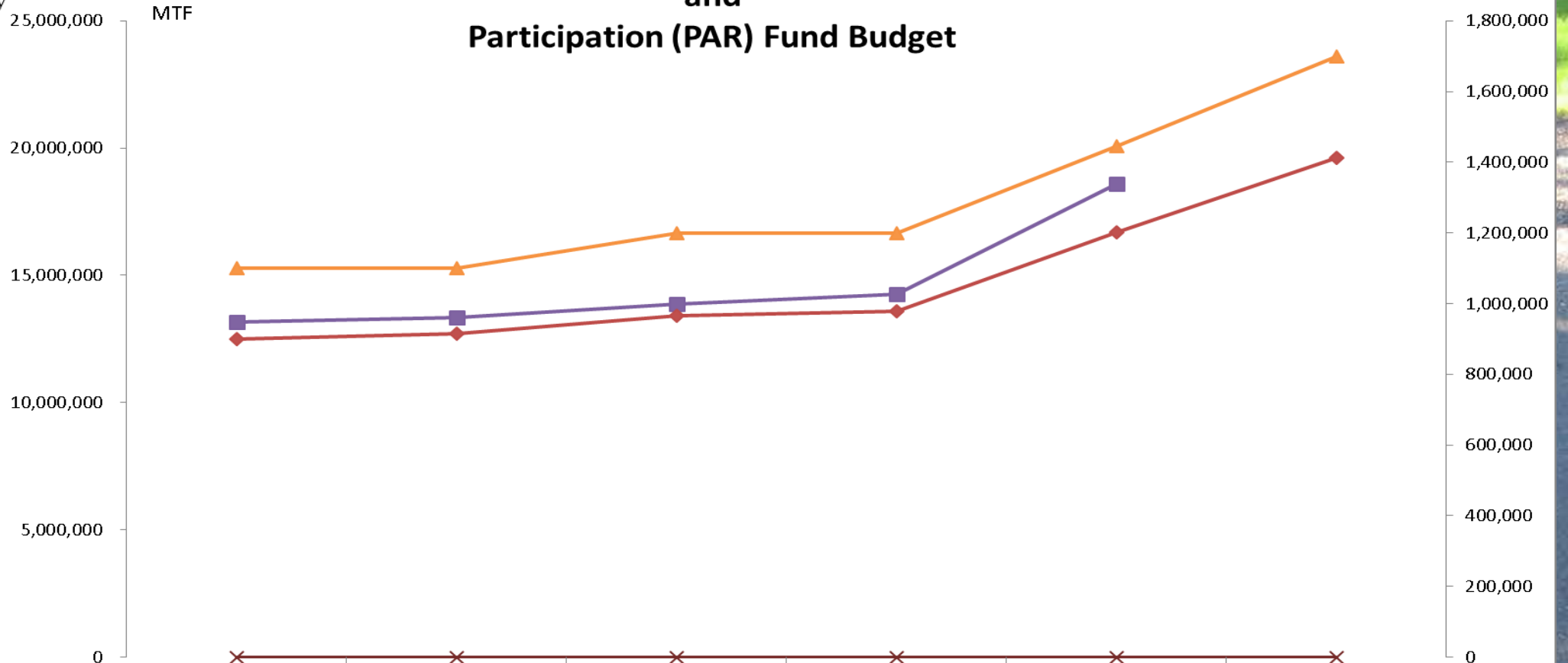
- Wakeshma Township has contributed less than \$30,000 on average per year for the last 5 years.
- Participation Funds will likely be \$60,000 - \$70,000 next year for Wakeshma Township.
- Participation Funds must be matched dollar for dollar.
- Any unmatched Participation Funds will be redistributed to the other townships.

Michigan Transportation Funds (MTF)



Road
Commission
of Kalamazoo
County

Michigan Transportation Fund (MTF) History and Participation (PAR) Fund Budget



PAR Funds Budgeted	1,100,000	1,100,000	1,200,000	1,200,000	1,445,000	1,700,000
Actual MTF	13,150,109	13,334,627	13,876,724	14,254,376	18,603,917	
Original MTF Budget	12,500,000	12,700,000	13,400,000	13,600,000	16,700,000	19,600,000
% - PAR / Orig. MTF	8.8%	8.7%	9.0%	8.8%	8.7%	8.7%

Local Road Funding Match

- Township General Fund
- Township Millage
 - Climax Township Millage
 - 1 mill, 10 years = Approx. \$65,000
- Township Special Assessments per Parcel
 - Alamo Township = Approx. \$160,000
 - Texas Township = Approx. \$360,000
 - Ross Township = Approx. \$5.5 Million/3
- Bond Proposal
 - Kalamazoo Township \$9.75 million
- Michigan Compiled Law (MCL) 247.670 property tax not to exceed 3 mills in any year
 - Comstock Township = \$480,000



Total Approximate Needs Today

- \$75,000,000 needed today to bring all paved roads into good condition
- \$39,500,000 needed today to bring all bridges into good condition
- \$3,000,000 needed today for gravel road maintenance
- \$4,700,000 needed today for traffic signals installation and maintenance
- ***TOTAL \$122,200,000***
 - We will NEVER have enough funds – we must use asset management to maintain our road system.



PASER System

GOOD

FAIR

POOR



PASER 10, 9, 8

Routine:

Crack Fill

Minor Patching



PASER 7, 6, 5

Preventive:

Chip Seal

Hot Mix Asphalt (HMA)

Wedging

Concrete Joint Repair



PASER 4, 3, 2, 1

Rehabilitation/

Reconstruction:

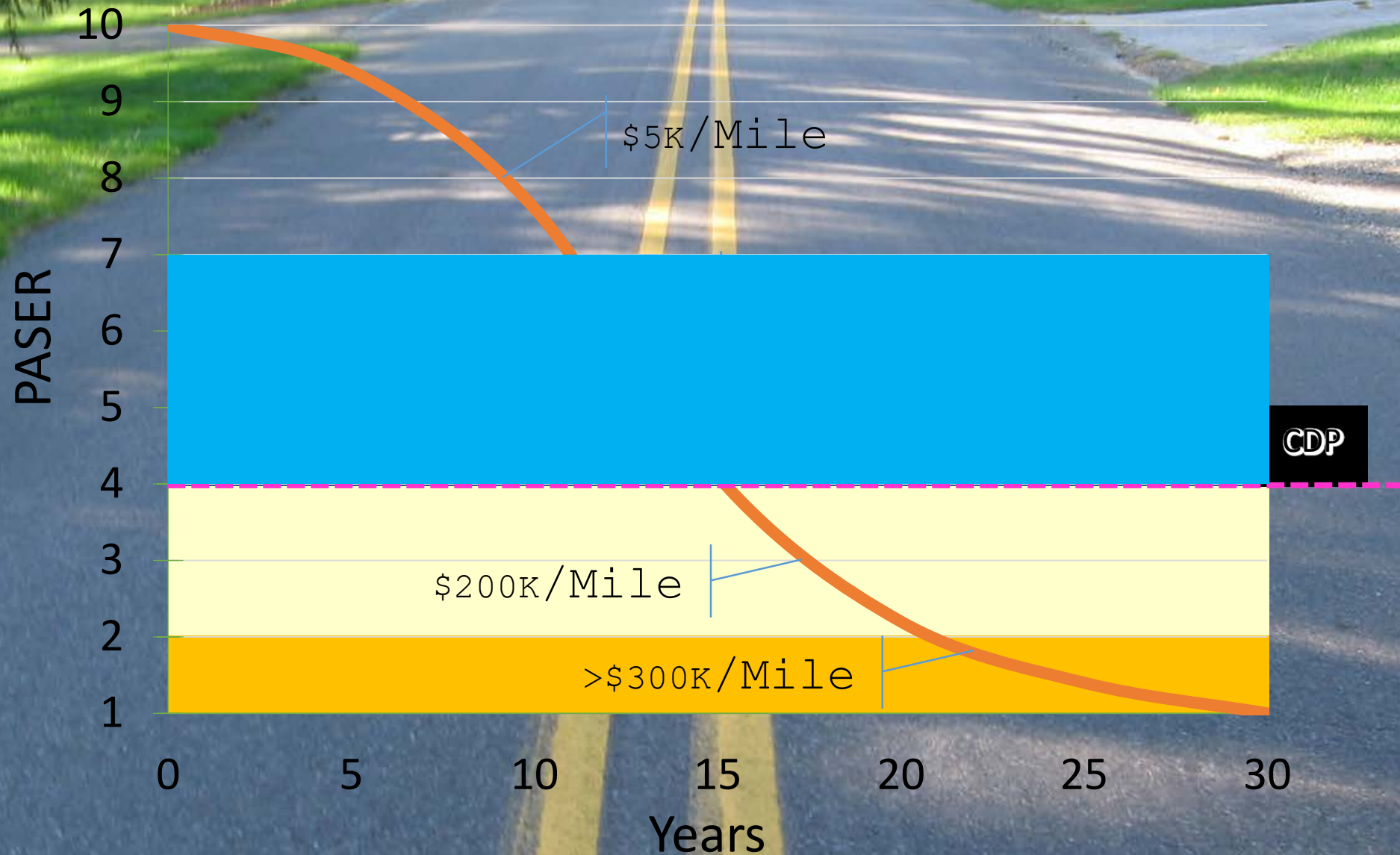
Resurface

Pulverize/HMA Paving

Replace Concrete Slab

Reconstruction

Cost of Treatments Increases With Time



Approaches to Managing Assets

Worst First

Spend money reconstructing and rehabilitate poor roads

Little or no preventive maintenance

Few miles of high-cost fixes

Mix of Fixes

Spend money on preventive maintenance of good and fair roads

Reconstruction if money permits

Many miles of low-cost fixes



MIX OF FIXES

Preventive Maintenance Projects will include treating road surfaces with a combination of spot cold milling, hot mix asphalt (HMA) wedging, crack fill, and chip seal.

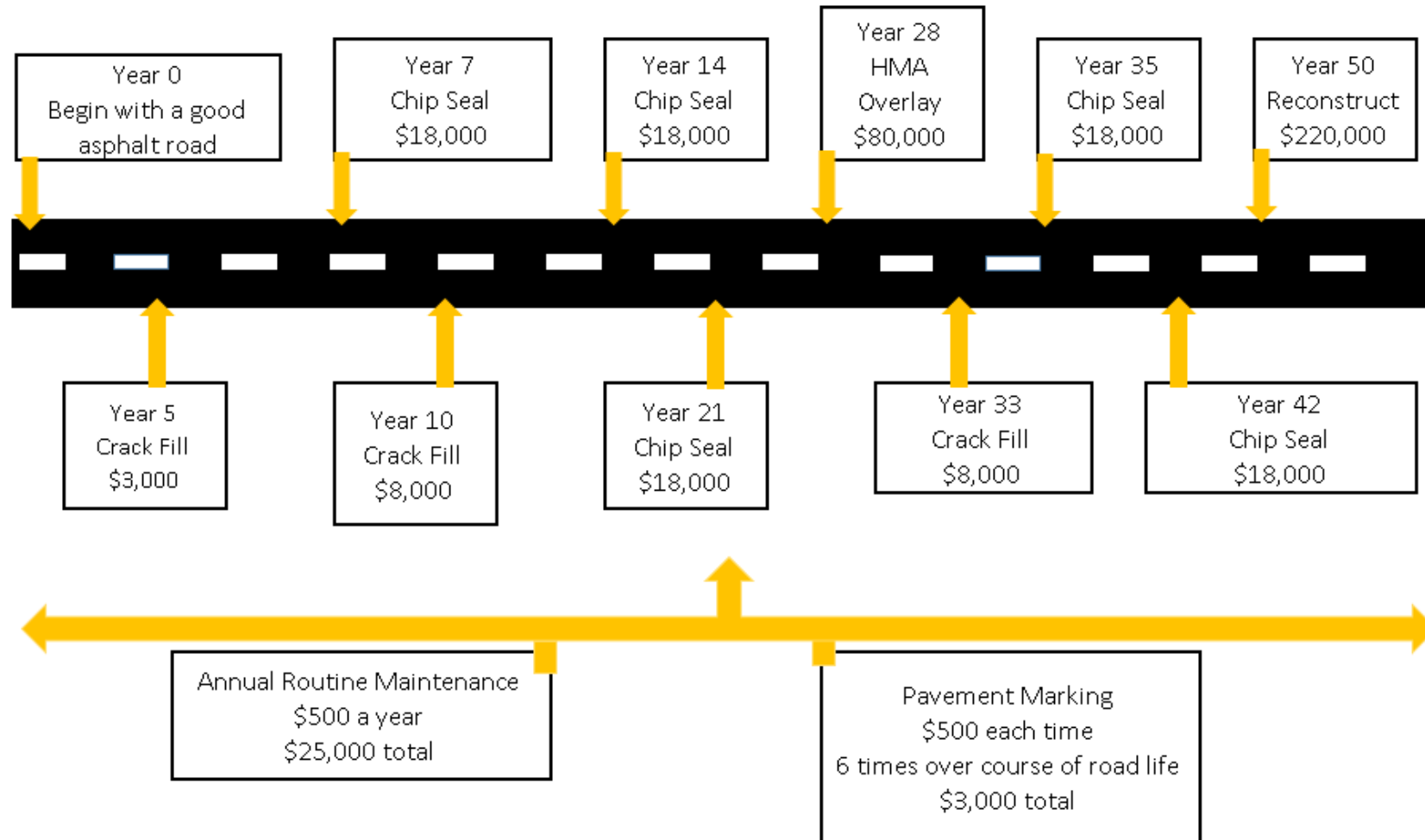
Rehabilitation Projects will require more extensive repairs, cold milling the entire road surface to a depth of 1-2 inches and replacing it with one lift of new HMA.

Reconstruction Projects require the most work to repair the road. These will require removing 3-4 inches of the existing asphalt pavement and repaving the road with 2 lifts of HMA.

Return to Gravel Projects includes placing 4 inches of 22A gravel on top of the existing pavement then pulverizing or mixing the gravel and pavement together, finally grading and compacting.

Life of an Asphalt Road

\$437,000 = \$8,740 annually

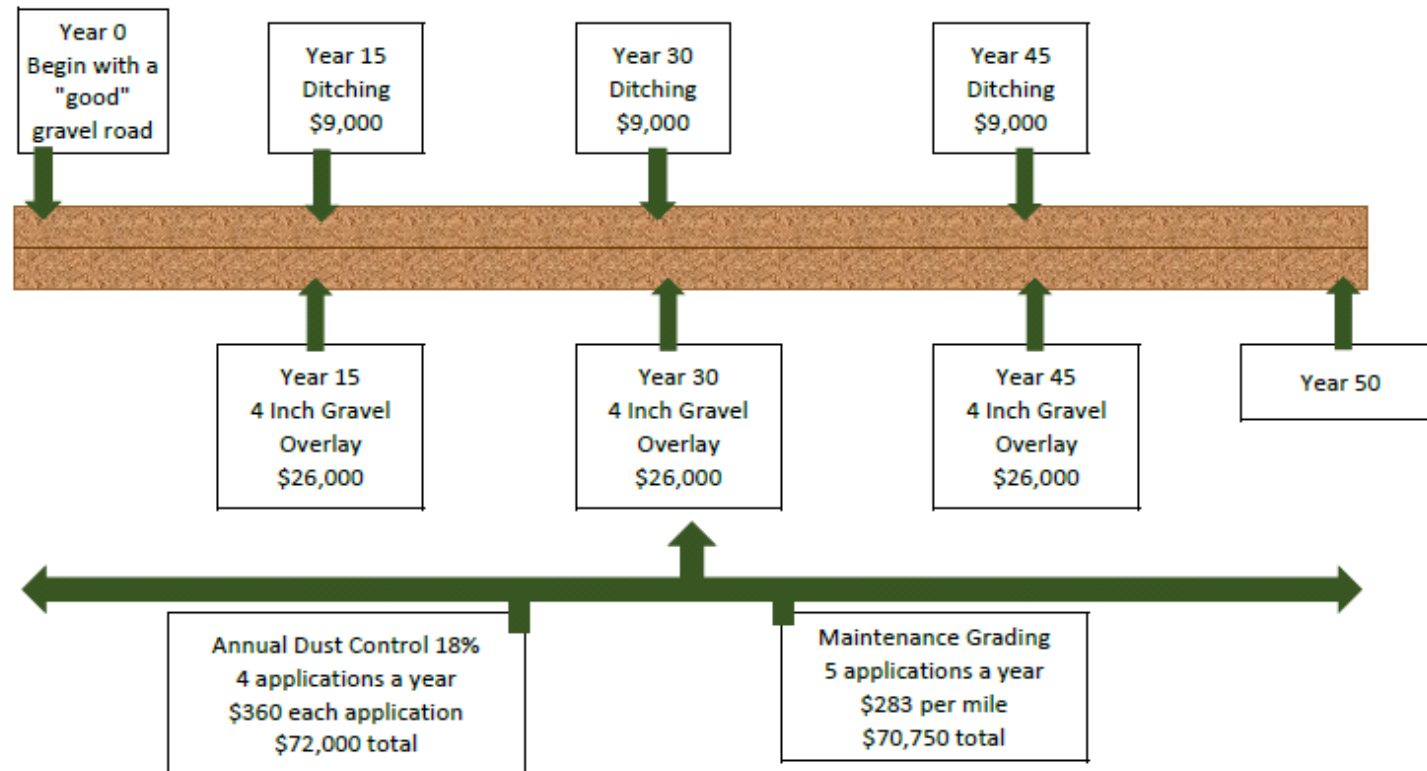


Life of a Gravel Road



The Life of a Gravel Road

\$247,750 = \$4,955 Annually



Failed Condition Local Road Policy

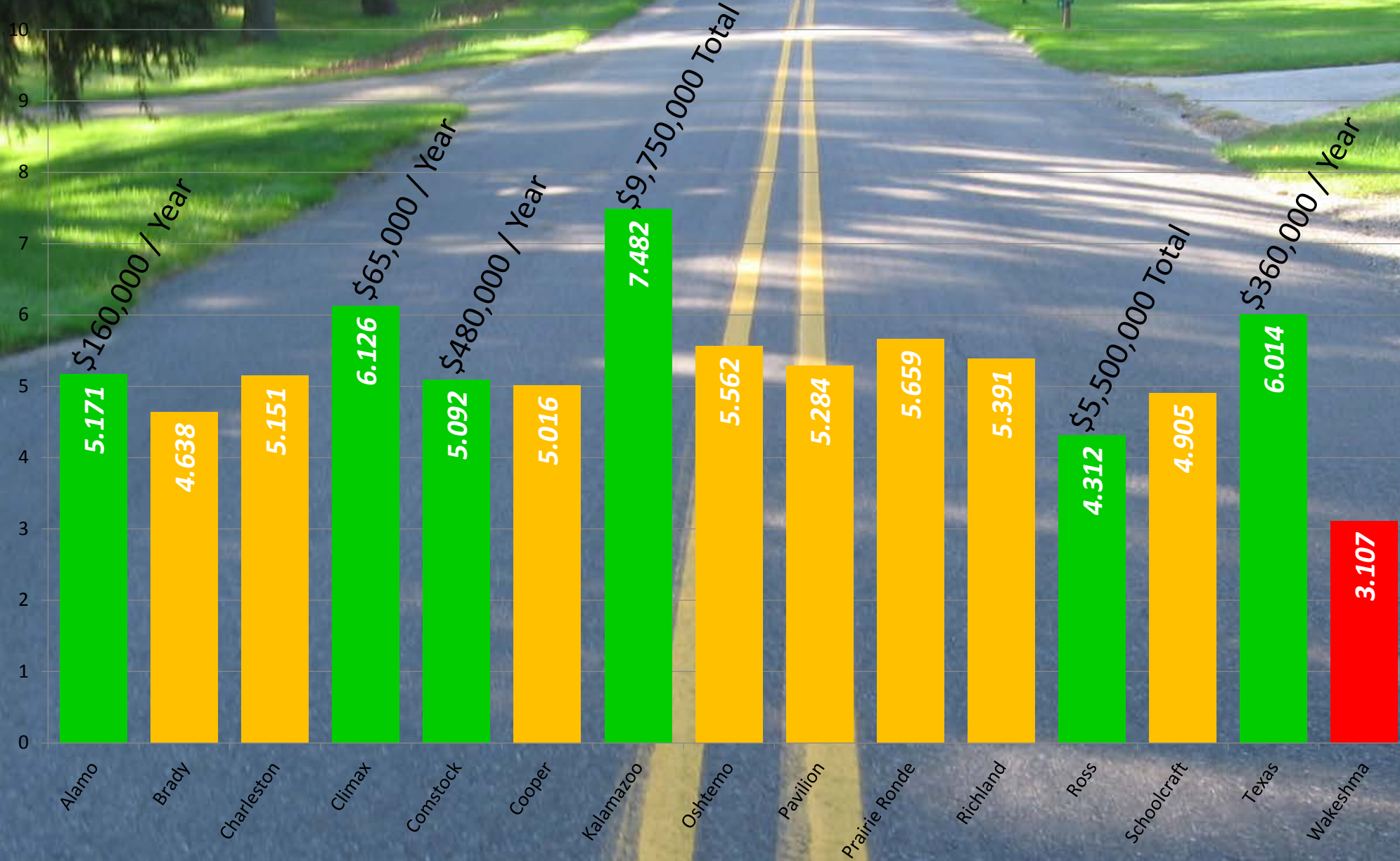
- **Designate Failed Road**
 - **Public process**
- **Short Term 6 months**
 - **Rough Road Advisory Signs**
 - **Reducing Speed (when applicable)**
- **With local participation**
 - **RCKC will absorb pulverization costs**
- **If no local participation, will effect Future Local Road Participation Funds for Township for cost to return to gravel**

Wakeshma Township Considerations:

- **Current road funding – will only maintain a gravel road network long term**
 - Current funding would not support the cost to return the failed hard surface roads to gravel
- **Additional road funding - Right size the hard surface verse gravel surface network to match funding resources**
 - Proposed 10 year Local Road Capital Improvement Plan includes returning 4 miles of road back to a gravel surface utilizing the “Local Road Failed Condition Road Policy”

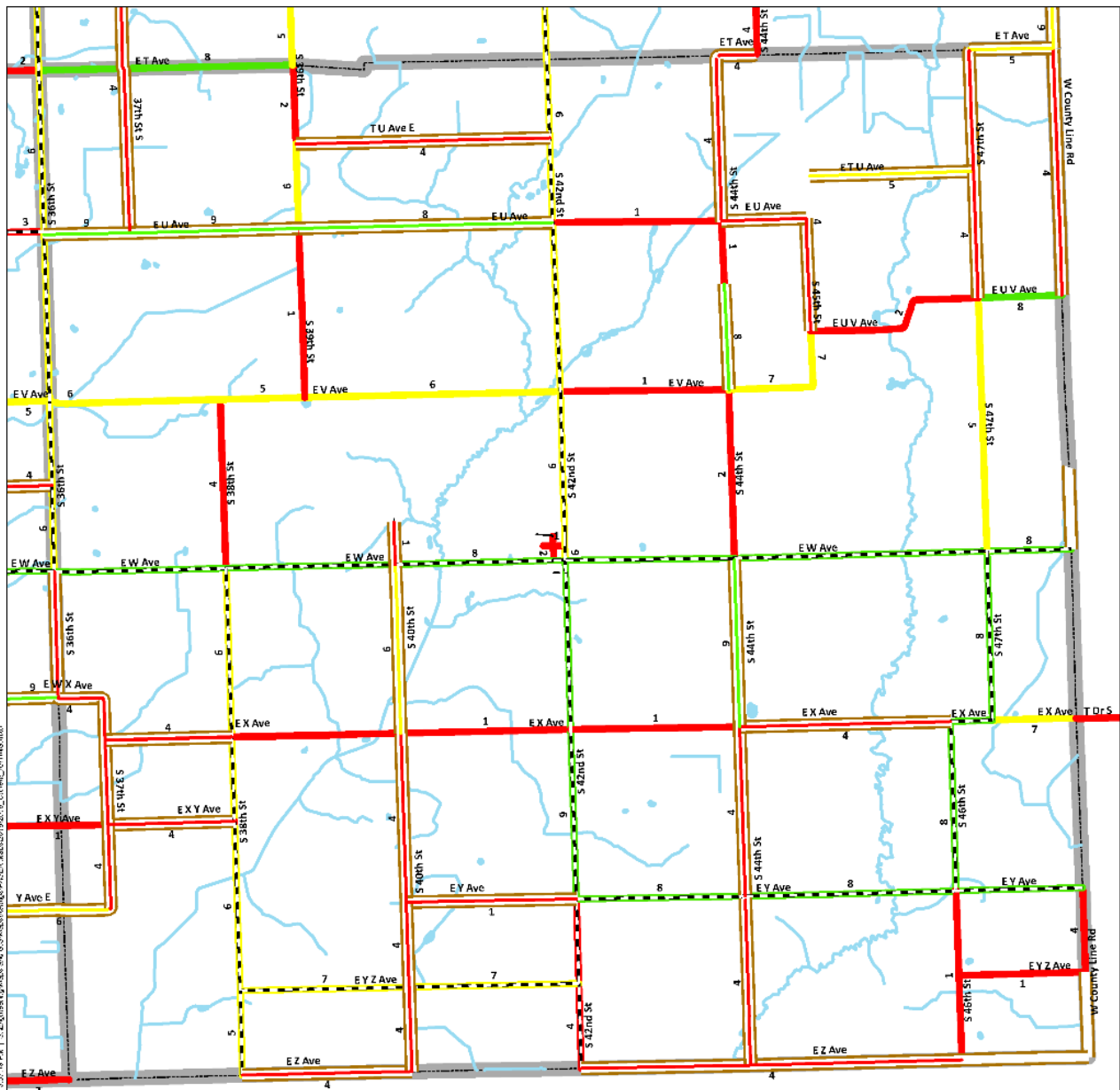
2018 Local Road Summary

Average PASER Rating by Township



2018 Current Asset Management Ratings Map

Wakeshma Twp



ASSET MANAGEMENT

Asset Management is a systematic approach to selecting the best investment at the right time to maximize the life of the asset being measured, in this case, road surface conditions. The goal is to maintain our roads in good condition, making periodic investments in the pavement, rather than letting it deteriorate to a level that requires a major investment to bring it back to a good condition. Periodic maintenance investments typically total less than the major investment required to rebuild a road.

PASER RATINGS

PASER stands for Pavement Surface Evaluation and Rating. The PASER rating scale ranges from 1, failed condition, to 10, brand new pavement. A pavement will only be a 10 the first year of its life, the second year it may automatically become a 9. Any condition of 8 or greater is considered to be a good condition, 7, 6 or 5 are fair, 4 or lower is poor.

- PASER based on 2016 ratings and project improvements.
- Private roads not rated.

IBR SYSTEM

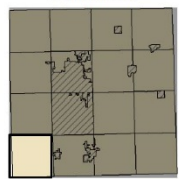
IBR stands for Inventory Based Rating. Condition assessment of unpaved/gravel roads is based on the Surface Width, Drainage Adequacy and Structural Adequacy of the roadway. Each of these three assessment areas are then aggregated to the IBR rating for good, fair, poor ranging from 1, poor condition, to 10, good condition. Once initial ratings are established, updates only occur when a construction or rehabilitation activity is completed. The baseline IBR rating occurred in 2015.

THE RIGHT FIX AT THE RIGHT TIME

The RCKC determines the best fix to optimize service life for each of our projects. Good pavement management involves less expensive treatments earlier in the life of the pavement in order to take full advantage of infrastructural investments.



Township Key



Road Classification

- State Trunkline
- County Primary
- County Local - Gravel
- City
- Private

Gravel Road Ratings

- Good (10, 9, 8)
- Fair (7, 6, 5)
- Poor (4, 3, 2, 1)

Road Ratings

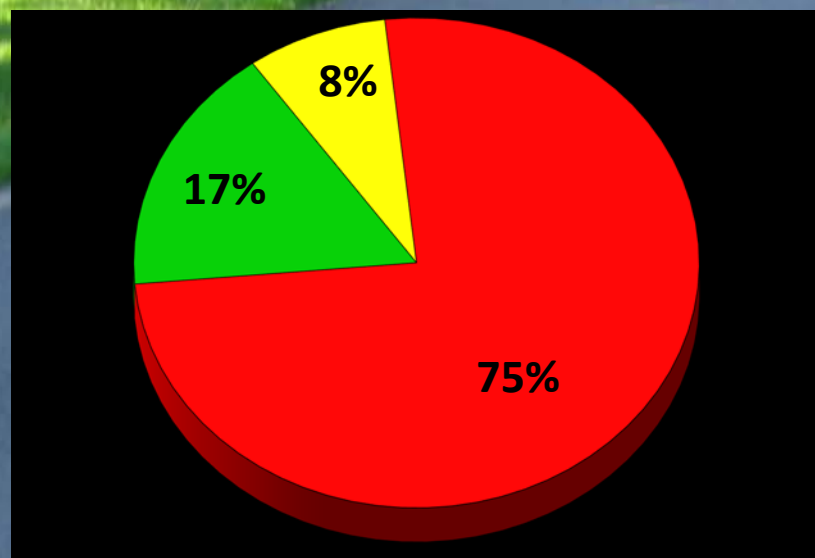
- Good (10, 9, 8)
- Fair (7, 6, 5)
- Poor (4, 3, 2, 1)
- Private Roads (Not Rated)

Boundary Designations

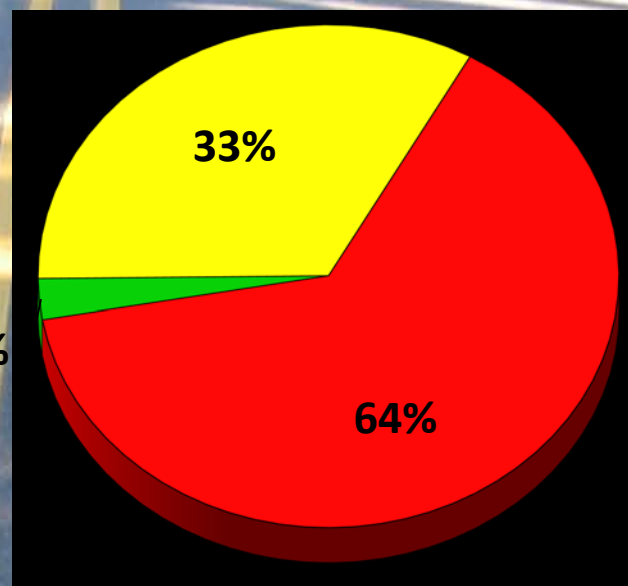
- Township/City
- Lakes & Rivers
- City/Village Limits

Wakeshma Township Local Roads

2018
Gravel Roads



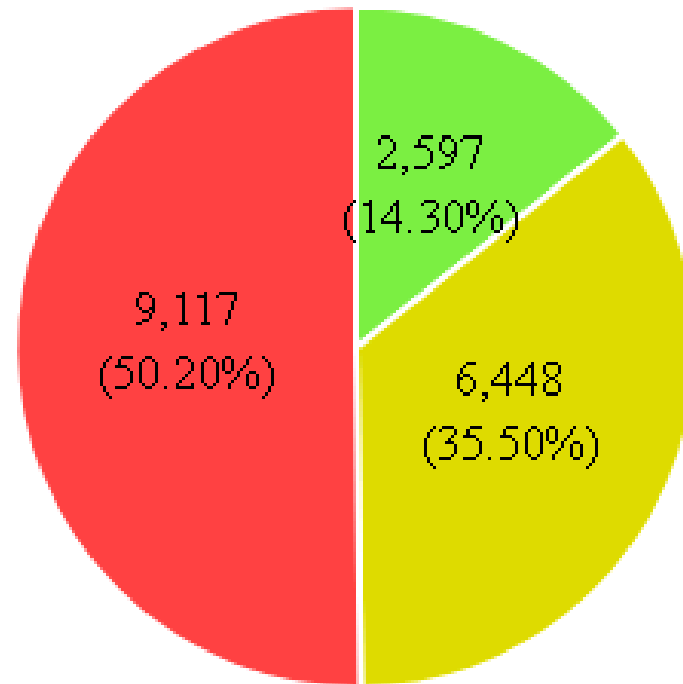
2018
Paved



*Good (PASER rating ≥ 8), Fair (PASER rating = 7, 6, 5) & Poor (PASER rating ≤ 4)
Paved Roads rated using the Pavement Surface Evaluation and rating (PASER).
Gravel Roads rated using Inventory Based Rating (IBR).

2016 Non-Federal Aid Rated Roads

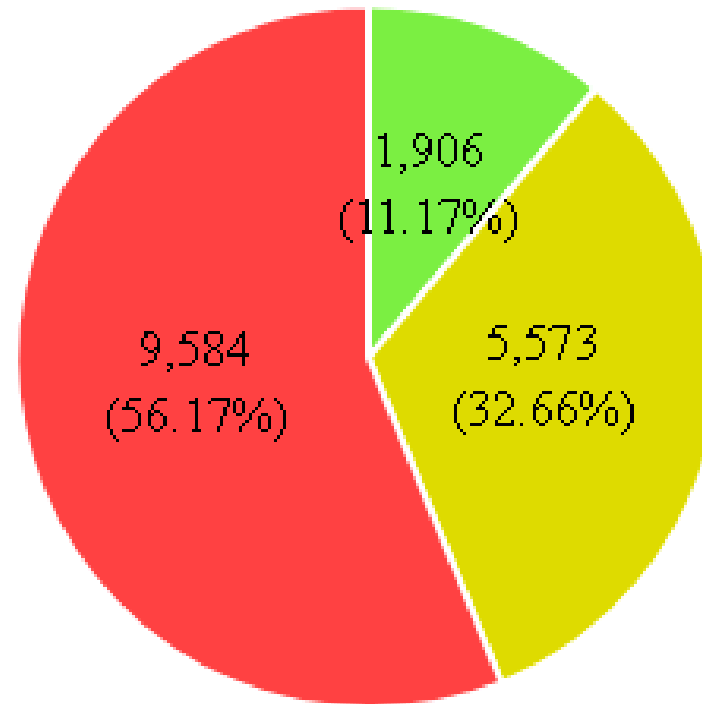
Miles Good Miles Fair Miles Poor



Rated Lane Miles: 18,162

2015 Non-Federal Aid Rated Roads

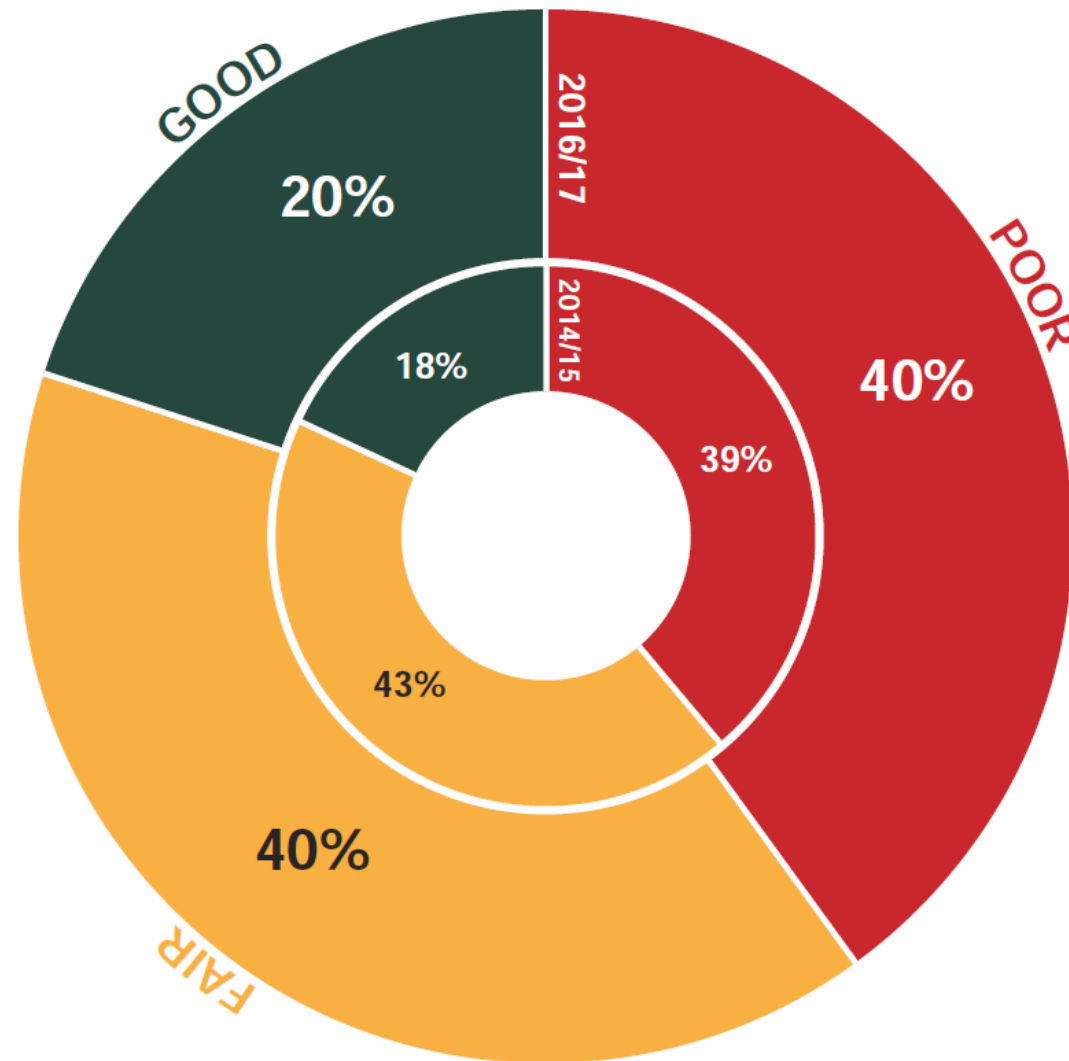
Miles Good Miles Fair Miles Poor



Rated Lane Miles: 17,062

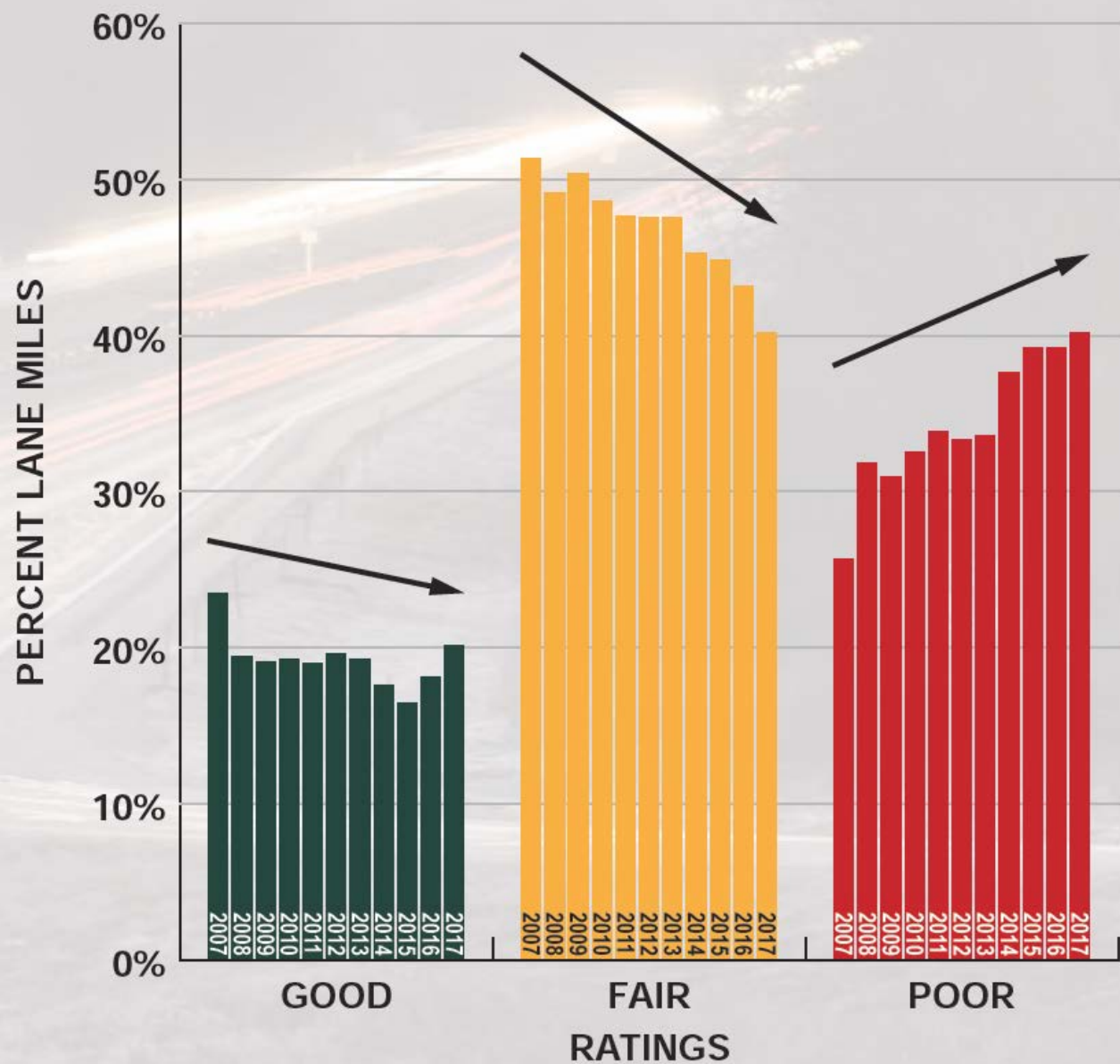
2016/17 vs 2014/15 Paved Federal-Aid Road Condition

Percent Lane Miles



Paved Federal-Aid Road Condition

2007-2017

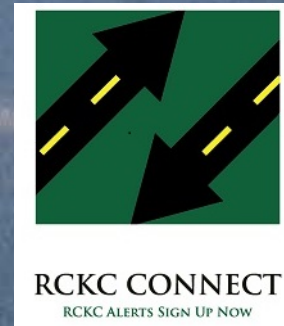


RCKC Communication

- Updated Website www.kalamazooountyroads.com
 - “Contact Us” - Service Requests, Agenda, Minutes, Project Information, Newsletter, Annual Report, Road Data, Budget, Purchasing, etc.
- Telephone 269-381-3171
 - Service Requests logged and tracked
 - We want your service requests!!
 - Emergency after hours call 9-1-1 Dispatch
- Television
 - RCKC Board meetings televised on Public Media Network or watch from our website link
- Facebook www.facebook.com/kalamazooountyroads
 - Daily updates on roadwork around the county
 - “Contact Us” Button to submit a Service Request
- RCKC CONNECT – alert system

RCKC Communication

- Sign UP:
 - From your Mobile Phone go to RCKC Website (*automatic mobile application upon sign up*)
 - From your Computer to RCKC website.
 - You can then go to the Mobile Member Application – “EverbridgeCONTACTBRIDGE” to CONNECT on your Mobile Phone too!
- Alerts provided to your choice:
 - Emails
 - Home Phone
 - Text
 - Mobile Phone
- Road Construction, Detours/Road Closures, & General Public News





Road
Commission
of Kalamazoo
County

Wakeshma Township

Wakeshma Township Road Committee

- Road committee has been meeting for more than a year
- Determined maintenance needed by road
- Calculated the dollars needed for network
- Explored the options for investment strategies, bonds
- Community meeting tonight to seek feedback
- Road committee is committed to be actively engaged with the township and RCKC to ensure the future of our infrastructure and assets
- PASER - what do we have?

Wakeshma Township

- **Primary Road Miles – 25**
 - Countywide Average – 6.52
 - Wakeshma Township Average – 7.11
- **Local Paved Road Miles – 19**
 - Countywide Average – 5.44
 - Wakeshma Township Average – 3.11
- **Local Gravel Road Miles – 28**
 - Countywide Average – 5.43
 - Wakeshma Township Average – 4.74





Situation in Wakeshma Township

- Poorest local roads PASER rating in Kalamazoo County
- Township may have additional gravel roads
- Tax rate of 0.99
- Township Fire Department collects .99 mils (strictly dedicated to the Fire Department)
- Wakeshma Township has never proposed a funding option for road projects

ROAD CHALLENGES

- **TOWNSHIP** has limited funds
- **RCKC** has limited funds
- **RESIDENTS** have limited funds
- More roads are aging and deteriorating
- Spending policy must be fair and equitable
- Township must be allowed to maintain roads when needed to avoid higher costs later – on-going

Wakeshma Township Options

- 1. Do nothing and continue with the same approach as the last 20 + years? (Current funding is inadequate to fail and return to gravel)**
- 2. Special assessment of each property, on a project by project basis? Must be resident initiated.**
- 3. Township Board votes to pass a Township wide special assessment where every property owner in the Township has “skin in the game”?**
- 4. Township road millage**

WAKESHMA TOWNSHIP TAXES COLLECTED

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(example based on a home with Taxable Value of \$100,000 and State Equalized Value (SEV) of \$200,000)

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BUILDING EXPENSE	\$4,900
ROAD PROJECTS (2018)	\$52,668.20
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WAKESHMA TOWNSHIP ROAD MILLAGE

Shall Wakeshma Township impose an increase of up to 3.0 mills (\$3.00 per \$1,000 of taxable value) in the tax limitation imposed under Article IX, Sec. 6 of the Michigan Constitution and levy it for 10 years, 2018 through 2027, inclusive for local road repairs, upgrades, construction, improvement and maintenance purposes, which 3.0 mill increase will raise an estimated \$202,900 in the first year the millage is levied?

THANK YOU - QUESTIONS

*Investing in **Roads** NOW*

For our FUTURE





Michigan
Transportation Asset
Management Council

2019 SPRING ASSET MANAGEMENT CONFERENCE PROGRAM

WEDNESDAY, MAY 22, 2019 – GAYLORD, MICHIGAN

The Transportation Asset Management Council and the Michigan Chapter of the American Public Works Association are holding a joint Spring 2019 Conference at the Treetops Resort, 3962 Wilkinson Road, Gaylord, MI. Additional lodging for TAMC conference attendees will be at the Otsego Resort, 696 M-32 East, Gaylord, MI; Telephone (989) 732-5181. On Tuesday, May 21, 2019, there will be a welcome reception and golf outing (registration is required for this event). On May 22, 2019, TAMC and APWA will have joint sessions of interest for all attendees. On May 23, 2019, APWA will hold APWA specific sessions only. Additional details for extra-curricular activities, how to register to attend the Thursday, May 23, 2019 APWA only sessions, and exhibit opportunities can be found on the 2019 APWA Great Lakes Expo website at <https://www.eventbrite.com/e/mi-apwa-2019-great-lakes-expo-tickets-34987588820>

7:30 – 8:00 AM: Registration & Breakfast

Morning Sessions 8:00 AM – 12:00 PM

Welcome and Opening Comments & Introductions – TAMC Emcee

TAMC Update – TAMC Council

Reporting of 2018 Michigan Road Conditions and Forecast – TAMC Support Staff

Networking Break

Reporting of 2018 Michigan Bridge Conditions and Forecast – TAMC Bridge Committee

Berrien County Department of Roads – Asset Management Plan for Berrien Bridges – Jason Latham, Berrien County and David Juntunen PE, The Kercher Group, Inc.

TAMC Award Presentations

12:00 PM – 1:00 PM: Lunch with APWA



Afternoon Sessions 1:00 PM – 4:00 PM

How Culvert Inventorying and Assessment Can Make Michigan Better – Christopher Gilbertson PhD, PE and Scott Bershing PE, Michigan Technological University's Center for Technology and Training,

Michigan Infrastructure Council & Water Asset Management Council – Jessica Moy, Michigan Infrastructure Council

Networking Break

Panel Conversation: Strategies for Preserving Your Roads – Monica Ackerson, Michigan Road Preservation Association and Paving Industry Professionals

Best First? A Strategy for Extending the Service Life of Roadways – Brad Lamberg PE, Barry County Road Commission



To Register:

Contact the Michigan Local Technical Assistance Program at the Center for Technology and Training at 906-487-2102, ctt@mtu.edu, or online at:

<http://ctt.nonprofitsoapbox.com/component/events/event/839>

Silver Sponsors:



Bronze Sponsors:





Michigan
Transportation Asset
Management Council

Policy for the Submittal and Review of Asset Management Plans for Roads, Bridges and Transportation Infrastructure Pursuant to Public Act 325 of 2018 & PA 338 of 2006

The Transportation Asset Management Council adopted this policy on _____.

Introduction:

The Transportation Asset Management Council (TAMC) was established to expand the practice of asset management statewide to enhance the productivity of investing in Michigan's roads and bridges. Recent amendments to Public Act 51 have outlined additional responsibilities for TAMC to develop a template and a schedule for the submittal of asset management plans from road-owning agencies. This document describes the policy, submission procedures and required elements for these asset management plans as well as role of TAMC and the Michigan Department of Transportation (MDOT) to receive, review and determine compliance with the public act.

Asset Management Planning for Agencies Not Subject to PA 325 Requirements:

PA 325 amended Public Act 51 of 1951 to require road agencies responsible for 100 or more certified centerline mile of public roads to submit asset management plans to TAMC. Agencies that certify less than 100 miles of roads do not have asset management plan submittal requirements under this PA 325 requirement. The Michigan Department of Transportation (MDOT) is not subject to the asset management plan submittal requirement as the Federal Highway Administration provides oversight of asset management plans coming from state transportation departments. TAMC does encourage all road agencies regardless of size to utilize asset management training programs, the TAMC Asset Management Plan Template and processes to assist in management of public road systems and transportation assets. Cities and Villages that are not required to submit asset management plans in response to Public Act 325 of 2018, but that choose to do so in order to shift funding in accordance with MCL 247.663 (Public Act 338 of 2006) shall follow the same procedures for plan submittal and will receive the same review and notification.

Submission of Asset Management Plans to TAMC:

As directed in Public Act 325 of 2018, no later than October 1, 2019, the TAMC shall develop a schedule for due dates of asset management plans by local road agencies responsible for 100 or more certified miles of roads and require its submission to the TAMC.

In 2007, TAMC created the Investment Reporting Tool (IRT) for road agencies to submit road and bridge project information for past and future reporting. In 2017, the IRT was enhanced to allow online submittal of asset management plans and other condition data.

Agencies required to submit asset management plans to remain in compliance with the new law are required to directly submit or coordinate submittal of their asset management plan files using the IRT. The IRT will provide acknowledgement of receipt for files submitted through electronic email sent to the address of the IRT account from which the files were uploaded. TAMC Support Staff will also receive electronic email notification of asset management plan submittals into the IRT from road agencies.

Asset Management Plan Template:

As directed in Public Act 325 of 2018, no later than October 1, 2019, the TAMC shall develop a template for an asset management plan for use by local road agencies responsible for 100 or more certified miles of road and required to submit reports to the TAMC. TAMC will provide public, digital access to the asset management plan template by making it available for download on the TAMC website; TAMC will also provide for direct distribution of the template through electronic email upon request. TAMC will also provide training and workshops as part of the TAMC Work Program to assist agencies with the creation of their asset management plans.

Asset Management Plan Elements:

The TAMC Asset Management Plan Template outlined above will contain all seven elements required of asset management plans as outlined in Public Act 325 of 2018. The basis of review by TAMC and certification of submitted plans for compliance to this act are the following elements and a defined multi-year capital program; guidance on these elements is provided in italics:

- (a) Asset inventory, including the location, material, size, and condition of the assets, in a format that allows for and encourages digital mapping. All standards and protocols for assets shall be consistent with government accounting standards. Standards and protocols for assets that are eligible for federal aid shall be consistent with federal requirements and regulations.

Specific transportation assets included in this inventory, at a minimum, will include roadway surfaces on the County Primary and City Major system and all bridge structures. Until TAMC develops guidance on traffic signals and culverts at a statewide level, road agencies are only required to include a short description of the current status of these two assets within the agency. The TAMC Asset Management Plan Template will include a placeholder sections for these asset classes; agencies with inventories and condition data on these and other asset classes are encouraged to incorporate these into their asset management plan.

“Inventory” and “location”: These requirements are currently met since the entire public road system is on the framework base map, and all public bridges are located in the MI Bridge system.

“Format that allows digital mapping”: Local road agencies using Geographic Information Systems (GIS) must be able to translate location data in their GIS system to the current Michigan framework base map. Limited extent (less than ten) assets that are not kept in a GIS system should be located using the “on/from” system using framework base map road and intersection names.

“Material, size and condition”: Currently the TAMC requires this data to be updated for 50% of the federal aid eligible roads, each year using the Pavement Surfaced Evaluation and Rating (PASER) and Inventory Based Rating (IBR) systems. Bridges are as required by federal inspection requirements. This data should also be collected for non-federal aid eligible roads, but there is no minimum requirement.

- (b) Performance goals, including the desired condition and performance of the assets, which shall be set by the local road agency. Performance goals may vary among asset classes under the local road agency’s jurisdiction. If a local road agency has jurisdiction over roads or bridges that are designated as part of the federal National Highway System, performance goals for that portion of the system shall be consistent with established federal performance targets.

“Performance goals”: It is suggested that these goals be set relative to a condition state that the public can understand. For example: Agency will maintain overall paved road conditions at or

better than their 2017 condition of XX% Good and Fair roads. Goals are aspirational, but yet achievable and should be set as such.

“National Highway System (NHS) performance goals”: The Michigan Department of Transportation (MDOT) sets statewide performance targets for the NHS system in Michigan. Metropolitan Planning Organizations then have the option of adopting the statewide targets or committing to a quantifiable target for their area. If an MPO adopts the statewide target, they agree to plan and program projects that contribute toward the accomplishment of the statewide performance targets. Local road agency owners of the NHS system, while not required to meet this state wide goal on the individual parts of the NHS that they own, are expected to plan and program projects that will contribute to meeting state goals. As such, the locally owned NHS system should be maintained in a condition that is as good or better than the rest of the federal aid eligible road system within in each local agency as illustrated by comparative PASER ratings..

- (c) Risk of failure analysis, including the identification of the probability and criticality of a failure of the most critical assets and any contingency plans.

“Risk of failure”: At a minimum, a local road agency will identify the critical linkages in their system that, if not functioning, will cause disruptions to the road users. Critical linkages could include roads or bridges, regardless of condition, that serve either high traffic areas, or link disparate population or industrial centers. Critical linkages could also include assets in poor condition that are likely to cause disruptions or risks to road users.

- (d) Anticipated revenues and expenses, including a description of all revenue sources and anticipated receipts for the period covered by the asset management plan and expected infrastructure repair and replacement expenditures, including planned improvements and capital reconstruction.

“Revenues and expenses”: This is not intended to be a detailed financial report, but rather a high level assessment of agency funding. Reporting expenses via the Act 51 Distribution and Reporting System (ADARS) system meets this requirement. As with MCL 247.668j (c) A financial performance dashboard that contains information on revenues, expenditures, and unfunded liabilities. Local road agencies may link to financial information provided by the TAMC.

“Infrastructure repair and replacement expenditures”: This requirement is met by complying with the TAMC existing investment reporting requirement.

- (e) Performance outcomes, including a determination of how the local road agency’s investment strategy will achieve the desired levels of service and performance goals and the steps necessary to ensure asset conditions meet or achieve stated goals and a description and explanation of any gap between achievable condition and performance through the investment strategy and desired goals.

“Performance outcomes”: Performance outcomes are the anticipated condition of the asset as a whole from five to ten years in the future, using a quantitatively based prediction method. Prediction methods can include modeling by pavement management software, historical trends, or service cycle based methods such as the National Center for Pavement Preservation network quick check.

- (f) A description of any plans of the asset owner to coordinate with other entities, including neighboring jurisdictions and utilities, to minimize duplication of effort regarding infrastructure preservation and maintenance.

“plans of the asset owner to coordinate with other entities”: At a minimum, this should include a narrative describing the process for publicly announcing planned projects, and coordinating with agencies responsible for other transportation services or other infrastructure, including buried infrastructure both public and private.

- (g) Proof of acceptance, certification, or adoption by the local road agency’s governing body.

“Proof of acceptance”: At a minimum a board or council approved action to accept the asset management plan. This can be in the form of minutes or resolution.

- (h) Multi-year Program, Asset Management Plans will also contain a multi-year program containing road and bridge projects. The projects contained in multiyear program shall be consistent with the asset management process and asset management plan of that local road agency and shall be reported consistent with categories established by TAMC. This includes annual reporting with TAMC’s Investment Reporting Tool (IRT), ensuring identified projects in the multi-year program are included with estimated costs, scope and dates of planned activities.

Projects that are planned for future years will meet the general intent of the strategy outlined by the plan. For example: a local road agency cannot detail a strategy to accomplish its goals using a mix of preventive maintenance and reconstruction, then propose only reconstruction projects for three years without some justification for this action.

Schedule for Asset Management Plan Submissions:

In November 2018, TAMC established a schedule for the submission of asset management plans by local road agencies that ensures that 1/3 of these local road agencies submit an asset management plan each year. Local road agencies may submit plans in earlier years, however they may not delay to a later year.

This schedule is as follows:

<u>October 1, 2020</u>		<u>October 1, 2021</u>		<u>October 1, 2022</u>	
1	Alger County	1	Alcona County	1	Allegan County
2	Baraga County	2	Alpena County	2	Antrim County
3	Bay County	3	Arenac County	3	Barry County
4	Berrien County	4	Benzie County	4	Branch County
5	Calhoun County	5	Charlevoix County	5	Cass County
6	Cheboygan County	6	City Garden City	6	Chippewa County
7	City of Ann Arbor	7	City of Battle Creek	7	City of Bay City
8	City of Dearborn Heights	8	City of Burton	8	City of Flint
9	City of Farmington Hills	9	City of Dearborn	9	City of Holland
10	City of Grand Rapids	10	City of Detroit	10	City of Lincoln Park
11	City of Jackson	11	City of Kalamazoo	11	City of Midland
12	City of Kentwood	12	City of Port Huron	12	City of Muskegon
13	City of Lansing	13	City of Rochester Hills	13	City of Novi
14	City of Livonia	14	City of Roseville	14	City of Pontiac
15	City of Norton Shores	15	City of Saginaw	15	City of Sterling Heights
16	City of Portage	16	City of St. Clair Shores	16	City of Warren
17	City of Romulus	17	City of Taylor	17	City of Westland
18	City of Royal Oak	18	Clare County	18	Crawford County

19 City of Southfield	19 Emmet County	19 Delta County
20 City of Troy	20 Gogebic County	20 Eaton County
21 City of Walker	21 Gratiot County	21 Gladwin County
22 City of Wyoming	22 Houghton County	22 Grand Traverse County
23 Clinton County	23 Ionia County	23 Ingham County
24 Dickinson County	24 Isabella County	24 Iron County
25 Genesee County	25 Kent County	25 Jackson County
26 Hillsdale County	26 Lake County	26 Kalkaska County
27 Huron County	27 Leelanau County	27 Keweenaw County
28 Iosco County	28 Livingston County	28 Lapeer County
29 Kalamazoo County	29 Mackinac County	29 Luce County
30 Lenawee County	30 Marquette County	30 Manistee County
31 Macomb County	31 Menominee County	31 Mecosta County
32 Mason County	32 Missaukee County	32 Montcalm County
33 Midland County	33 Montmorency County	33 Ogemaw County
34 Monroe County	34 Newaygo County	34 Oscoda County
35 Muskegon County	35 Oakland County	35 Presque Isle County
36 Oceana County	36 Ontonagon County	36 Roscommon County
37 Osceola County	37 Otsego County	37 Saginaw County
38 Ottawa County	38 Shiawassee County	38 Schoolcraft County
39 Sanilac County	39 Van Buren County	39 St. Clair County
40 St. Joseph County	40 Washtenaw County	40 Tuscola County
41 Wayne County	41 Wexford County	

Compliance Review Asset Management Plans:

As an element of ongoing compliance reviews for Public Act 51, MDOT and TAMC Support Staff will review asset management plans submitted through the IRT for completion against the asset management plan elements as outlined in Public Act 325 of 2018 and in this policy. Asset management plans that meet these required elements will be approved and notification will be provided to MDOT's Act 51 staff.

Asset management plans submitted that do not meet required elements as outlined in this policy and Public Act 325 of 2018 will be determined to be out of compliance, and the road agency will receive written notice from MDOT's Act 51 staff with directives on how to revise the asset management plan. Non-compliant agencies will also receive contact information for TAMC Support Staff in this notification. Failure to resolve non-compliance standing with Act 51 reporting requirements can lead to Act 51 funds being withheld until such a time that compliance can be determined.

Progress Towards Asset Management Plan Goals:

Beginning October 1, 2025, if the TAMC determines, and MDOT concurs, that a local road agency has not demonstrated progress toward achieving the condition goals described in its TAMP for its federal-aid eligible county primary road system or city major street system, as applicable, the TAMC shall provide notice to the local road agency of the reasons that it has determined progress is not being made. The local road agency shall provide a plan to become compliant within 6 months after receiving the notification. Guidance for progress as it pertains to this policy is as follows:

“Demonstrated progress toward achieving the condition goals”: Goals are aspirational, and local road agencies should be encouraged to set them high, but realistically achievable. Demonstrated progress means that the road agency is making a good faith effort to conform to the conditions of its asset management plan through management and planning.

“Become compliant”: This means the local road agency will develop a strategy of planned, fundable projects that will make progress towards its goals as written.

If you have any questions relating to this policy, please contact:

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